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A N
H I S T O R Y
O F
F U N G U S S E S,
G R O W I N G A B O U T
H A L I F A X.

W I T H
FORTY-EIGHT COPPER-PLATES;
O N W H I C H A R E E N G R A V E D
FIFTY-FOUR SPECIES of FUNGUSSES,

V I Z.

The Remainder of the AGARICS, with the Three succeeding GENERA,
BOLETUS, HYDNUM, and PHALLUS:

Wherein their various Appearances in the different Stages of Growth, are faithfully exhibited in
more than

T W O H U N D R E D F I G U R E S, 2

Copied with great Care from the PLANTS, when newly gathered and in a State of Perfection.

With a particular DESCRIPTION of each SPECIES, in all its Stages,
From the first Appearance to the utter Decay of the Plant; with the Time when they were gathered; the Soil
and Situation in which they grew; their Duration; and the particular Place
mentioned, where all the New or Rare Species were found.

The Whole being a plain Recital of FACTS, the Result of more than Twenty Years Observation.

By J A M E S B O L T O N,
Member of the Nat. Hist. Society, at EDINBURGH.

V O L. II.

N A T U R A S E M P E R E A D E M.

H U D D E R S F I E L D :

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M,DCC,LXXXVIII.



I N T R O D U C T I O N

C O N T I N U E D.

THE *Halvella inflata* has, for several years past, grown plentifully in the plantations about *Fixby-Hall*, near *Huddersfield*; it makes its annual appearance in two or three particular places in those fertile woods, and I never met with the plant in any other place, though I have often sought it in similar soils and situations.

The *Hydnum imbricatum*^a, has at its season, for more than twenty years successively, grown in one part of *North-Dean*, near *Halifax*: though I have very rarely seen it elsewhere in this neighbourhood.

Some of the parasitic *Boleti* are perennial and abiding, growing and increasing from year to year, as the *Boletus igniarius*^b, (and amongst the Agarics the *A. quercinus*^c;) others which are of a more perishable nature, and serve as food to the numerous brood of various kinds of insects, I have found to grow annually from the same spot, as the *Boletus squamosus*^d, and the *Boletus hepaticus*^e.

The *Boletus elegans*^f, which was found in the hollow of an old elm tree root, in August, 1786, did not make its appearance there in 1787, but this present year 1788, on the 28th of July, another specimen grew in the self same spot; so that this species seems to be biennial in its nature.

Some species of *Fungi* are subject, from accidents, in soil, situation, and exposure, to vary much in point of size: I have seen specimens of the *Lycoperdon bovista*, varying from the size of a walnut to that of a child's head, when the small, as well as the large specimen, had arrived at its full extent of growth.

July 18, 1788, the *Agaricus latus*^g was brought me, in a state of uncommon luxuriance. The pileus measured twenty-seven inches in circumference, the surface was waved, and the margin undulated; a gill of the first series measured three inches and two lines in length, and something more than one inch in breadth; the stem was near seven inches high, and about four in circumference; the seeds were of a brown colour, and spherical.

In September, 1787, I gathered a specimen of the *Agaricus muscarius*, which weighed thirty-one ounces and upwards, though the lower part of the stem and the root were wanting. Happily however, this inequality of size is not very productive of error in the detection of species; for the substance, texture, constituent matter, and generally the colour too, are often exactly similar, and undergo the same mutations in the smaller, as in the larger specimen.

In regard to the stems of Agarics, the circumstances of solid and fistular, should be attended to with caution, before they can be properly applied as discriminative characters; because in many species the stem is solid in the first stages of growth, but becomes fistular, by degrees, when the plant arrives to its perfect state; and, in the progress of decay, be-
comes

comes more and more hollow, till its final dissolution. In describing the plants, in this work, I have carefully noted these changes: but all stems of this kind are to be considered as solid, when that circumstance is made use of, by way of specific character; and where it is said, that a stem is *solid*, it is meant, when the plant is in a state of growth and vigour; when it is said, that a stem is *fistular*, it is to be understood from its first appearance above ground.

I have endeavoured in all the figures, to give proper attention to the Roots of the Agarics; a part of them which seems to have been greatly neglected, though most of the species are furnished either with a proper, or a common root. It generally consists of a tuberos piece, of a proportionable size, and a tough hard substance; which is, as it were, incorporated into the base of the stem, and emits fibres into the ground or other matter, for the support of the plant. It is often, however, overlooked, for if the plant is not taken up with care, the base of the stem breaks, and the root, with its fibres, remains in the ground, and escapes our notice.

Figure, in the Pileus of Agarics, which has by many been considered as a character of specific distinction, has been a source of much perplexity; the truth of this assertion will be obvious, when we consider, that in many species the several *Terms*, globular, oval, convex, umbellicated, and funnel-shaped, may, with equal propriety, be applied to the same individual specimen, in the various stages of its growth. These mutations of figure are carefully noted throughout the work, both on the plates and in the descriptions; and where the figure of the pileus is brought in, as aiding to the specific character, it is meant, to denote its figure when in a state of perfect growth, or between the last excess of its increase, and the first approaches of its decay. Laceration or rents in the pileus, which are always a certain sign of its approaching decay, are the effect of contraction in its substance, and depend in some measure on the dryness or moisture of the air; for in rainy seasons, when the plant can imbibe

imbibe a sufficient supply of moisture, it often falls and dissolves without lacerating.

Colour, in Agarics, (especially in the perusal of such authors as have given descriptions without figures) has been another source of much perplexity; for though the colours in the respective species are not very inconstant, yet they are of such mixed and indeterminate hues, and those of one species so nearly verging upon those of another, that it is little less than impossible, to convey clear and distinct ideas of them, by words alone, either in our own or any other language. For this reason I have been particularly careful in mixing the colours, both in making the drawings and colouring the prints, to imitate the precise hue of the object, as near as I possibly could.

The part of an Agaric which is extended from the stem to the rim of the hat, and which authors distinguish by the term *velo*, I have named in English *curtain* rather than *veil*; because the latter has been already made use of, in our language, to denote an hood or covering on the fructification of most mosses, which is of a quite different figure from the curtain of an Agaric, and of which the word *veil* contains a more apt *idea*.—The use of this part, in one as well as the other, is to secure and conceal those hidden operations of nature, which are necessary to the production of perfect seeds; but in the mosses it is a close hood, in the Agarics it is an extended membrane.

The cover, which in some species surrounds the root, and inwraps the pileus in its infant state, is by *Battarra*, *Scopoly*, *Schoeffer*, *Hallar*, and others, termed *volva*. The excellent *Linnaeus*, it seems, did not consider the volva and curtain as distinct objects, for in the specific characters of the *Agaricus muscarius*, we find, *stipite volvato**; in the description of *Agaricus extinctorus*; *basi crassius nudus absque volva*†. The term Volva, is made use of in the present work, because no English word occurred to me, which I thought equally expressive, of the figure and use of that surrounding

* Sp. Pl. 1640 —† Flora Suecica 1196.

surrounding cover. *Spatha*, a sheath, is now almost solely applied to the lily *narcissus*, and other plants of the same, or a similar structure; *gluma*, an husk, to the grasses, &c. *involuerum*, (*involuere*) to a cover of a particular structure, found on the top of the stems and branches of the *umbelliferous* plants, and serves as a defence to the umbells of flowers, whether universal, partial, or both.

In making choice of specimens, I have throughout the work avoided such as were uncommonly large, or small in their kinds; and have drawn and described such as were of a middling size, in respect to others of the same species. Often, when I have met with a plant in one state only, whether young, middling, or otherwise, I have made an exact drawing in that state; and finding the plant afterwards in a different state, I have taken another figure, perhaps on the same or on a separate paper, and have always accompanied these drawings with descriptive notes.—In the Drawing, I have all along endeavoured to give a faithful and accurate imitation of the object before me, and to represent Nature just as I saw her in herself, with her simplicity and accidents about her. From a selected choice of the above drawings, the figures on the plates were taken; and from those descriptive notes, the descriptions were selected: and there is not one figure, nor one description in the whole work, which was not originally drawn and written by my own hand, from an immediate inspection of the respective object, when in a recent state; and (except in a few instances) gathered, in the natural place of growth, by me.

The Etching of the plates, such as it is, is wholly my own performance; and when a specimen fell into my hands, at a time when I had an opportunity of etching it, I made the primary outline upon the copper without any previous drawing, I drew it on the waxed plate, with vermillion, in the point of a fine pencil; and when I copied drawings, I used the same method in laying the outline upon the plate; for besides that it was more readily done, and more agreeable to me, it prevented those injuries which the wax is liable to in back tracing; and preserved

an air of originality in the outline, which is not without great difficulty retained, under that hazardous and disagreeable operation.

The Essay towards a methodical arrangement of the Agarics contained in this work, how imperfect soever in its present infant state, may, I hope, be useful, in exciting the attention of such of my friends in particular, or of Botanists in general, as have made some progress in the study of this perplexing, and extensive branch of Natural History.

The primary divisions are founded in the disposition and arrangement of the gills; the secondary, in the presence or absence of either the volva, or curtain, or both; and the specific distinctions are drawn from the size, figure, colour, texture, &c. &c. of all the parts, both external and internal, combinedly. The necessity of this combination is the most perplexing part in the study of Agarics, and this perplexity must always remain:—for the parts are so simple and few, and the *Genus* so numerous, that it is impossible to affix single specific Diagnostics.—That a gradual and progressive arrangement or disposition may exist, between all the created species of this *Genus*, I deny not, but this connection (till all the created species are known) we can no more discover, than we can write a complete History in any Language, and be denied the use of perhaps three-fourth parts of the characters, which constitute the Alphabet of that Language. The chain can never be completed, while so many intermediate links are wanting.

In citing Authors, I have referred to such figures or *synonyma* as I thought most proper, but did not think it necessary to swell the Book, by transcribing those *synonyma*; many of them being already collected together, in Mr. Hudson's excellent *Flora*, and in most other similar publications, as well as in this work, at the head of the respective description of the plant, except in the new or undescribed species.

The

The plants of the order of *Fungi*, afford food to many species of insects; the gills of *Agarics*, and the tubes of the stalked *Boletusses*, are greedily devoured by snails; while the solid or fleshy parts afford both food and habitation to the *Larvæ* of numerous species of flies, both of the *Diptera* and *Coleoptera* classes. Some of these *Larvæ*, when sufficiently fed in the fleshy parts of the plant, make their way down the hollow of the stem into the ground, where they swathe themselves, and remain in the *Pupa* state, till the appointed time of their revival.

Throughout this work, I have endeavoured to clear the subject from those difficulties wherewith it has been long encumbered. In some species, indeed, it was very difficult to determine with precision; the plants are so very similar in figure; so very different in appearance, at different stages of their growth; so various in their colour, according to the weather or their age; and so confounded by authors, that a man might almost spend his whole life amongst them, in order, clearly and accurately, to ascertain their species. I have carefully observed, drawn, and described the plants of this order, when in season, for twenty-seven years past; having drawings in my possession which I made in 1761. I have made use of all the lights I could obtain from the works of *Linnaeus*, *Hudson*, *Scopoli*, *Haller*, *Vaillant*, *Micheli*, *Battarra*, *Sterbeeck*, *Gleditsch*, *Dillenius*, *Ray*, &c. &c. and after all, I willingly submit my observations to the few, who have studied the subject as devoutly as myself, to alter, change, or totally *reject*, such as are wrong; and I hope that those few, knowing the difficulties that attend the undertaking, will candidly overlook and forgive such small mistakes as have escaped me.



A N

HISTORY OF AGARICS,

GROWING about HALIFAX.

AGARICUS *stipitatus*, pileo convexo squamato albido, lamellis
rufis. Linn. Sp. Pl. 1641.

LII.
campestris.

ESCULENT AGARIC, Mushroom or Champignon.

T A B. XLV.

THE root is surrounded with numerous short dawny fibres,
of a greyish colour.

The stem is solid, brittle, cylindrical, and white; while
young a little swollen in the middle, and is large and thick in
proportion to the pileus.

The curtain is white, of a dawny or cottony substance,
soon lacerates, falls off, and vanishes.

The gills in three series, pointed at the base, not adhering
to the stem; at first of a pale rose colour, afterwards change to
a brown hue, and turn black in decay.

The pileus while young is globular, generally smooth and
white, sometimes tinged with a pale brown, and having an ap-
pearance of scaliness on its surface; as it advances in age the rim
unfolds, till at last it becomes nearly horizontal, changes by way
of buff colour to a dusky brown, and falls and withers in decay.

Grows in pasture grounds, after much rain, in *July* and
August, not in plenty about *Halifax*.

This Agaric is in much request at table, having an excellent
flavour, and being accounted safe. There are instances, however,
on record, of its pernicious and fatal effects upon such as have
eaten largely of it; but it may be asked, whether those bad
effects were occasioned by a poisonous quality in the true mush-
room, or by an error or oversight in the gatherer? For the
Agaricus annulatus, which is esteemed poisonous, so nearly re-
sembles the mushroom in some of its states, that I have seen it
gathered, by mistake, for that species. The *Agaricus vernalis*
also, sometimes, nearly resembles it.

H

- LIII. *AGARICUS stipitatus, pileo hemisphærico amplo coccineo, cum
nobilis. fragmentis niveis eleganter ornato, volva dupla, radicale
lobata persistente, pileana lacerata.*

NOBLE AGARIC.

T A B. XLVI.

THE root approaches to a bulb-shape, is white, and of a substance familiar to that of the stem; it is surrounded with a thick white volva, which enwraps the whole plant in its infant state, and abides till the decay of the plant.

The stem is firm, solid, brittle, cylindrical, white, upright, and four inches high.

The curtain is white, pretty firm, and has some degree of elasticity; it separates from the pileus all round the margin, and abides for some time like a white ruffle round the stem.

The gills are arranged in three series, of a semi-oval shape, not adhering to the stem, of a pure white colour, and soft delicate substance.

The pileus is surrounded by a volva proper to itself, detached and separate from the radical volva; this is a thin, light, white dawning epidermis or covering, which enwraps the substance of the pileus, while it is yet enclosed in the radical volva, and, after its eruption, is by the increase of the pileus torn in fragments, which are as white as snow, and remaining on its surface, give an elegant and pleasing appearance to the plant.

The pileus is convex, the rim entire, the colour of its surface a fine, clear, bright, and glowing scarlet; is smooth, and feels like fine vellum; the substance of the flesh is white, thick, and brittle.

This plant differs from the *Agaricus muscarius*, in having a volva or covering proper to the pileus only, and in having the gills arranged in three series.

The specimen here figured and described, I gathered in a plantation at *Mills-Bridge*, near *Huddersfield*.





AGARICUS *stipitatus*, pileo convexo cinereo verrucoso, verrucis LIV.
lamellisque albis, stipite basi bulboso. Hudson Ang. 613, verrucosus.
 No. 11.

WARTY AGARIC.

T A B. XLVII.

THE root, as in the last species, is a little swelled, or approaching to a bulb-shape, especially while the plant is young; it is surrounded with a large, white, lobed, permanent volva, which emits a number of fibres from its base.

The stem is firm, solid, upright, cylindrical, of a brittle substance, and four or five inches high.

The curtain is white, tough, soft and dawning to the touch; it separates from the pileus all round the rim, without being torn, and remains on the stem.

The gills are arranged in three series, but variable in their respective lengths; they are deep or broad, white, soft, pliable, and numerous.

The pileus is globular at its first eruption from the volva, and closely covered with prominent warts, which are not the fragments of any volva, but of a substance similar to that of the pileus, and grow thereupon; they are hard, of a firm texture, and on being forced from the pileus will break its surface; they increase proportionably with the plant in the progress of its growth, and at its maturity are easily separable therefrom, leaving pale marks on the parts of the surface which they occupied.

The colour of the warts is a little paler than that of the surface of the pileus, both are of a brownish dusky mouse colour; the flesh is thick, white, and brittle.

Grows in woods, about the roots of trees, but is a rare species here. The specimen here represented, I gathered in the *Sbroggs*, opposite *Birks-Hall*.

It differs from the *A. nobilis* and *A. muscarius*, in that the inequalities on its surface are growing tubercles, and not loose fragments.

- LV. AGARICUS *stipitatus totus albus, stipite bulboso volvato, pileo*
vernalis. hemisphærico splendente glutinoso, velo areneoso manente.

BULBOUS VERNAL AGARIC.

T A B. XLVIII.

THE root is a large globular bulb, of a soft spongy substance, white, and surrounded by a soft, white, bilobate volva.

The stem is solid, smooth, upright, white, soft, spongy, brittle, and three or four inches high.

The curtain is white, very delicate, while it is extended over the gills it appears like a thin dawning spider's web; after it is disengaged from the rim it contracts, and abides on the stem for a short time.

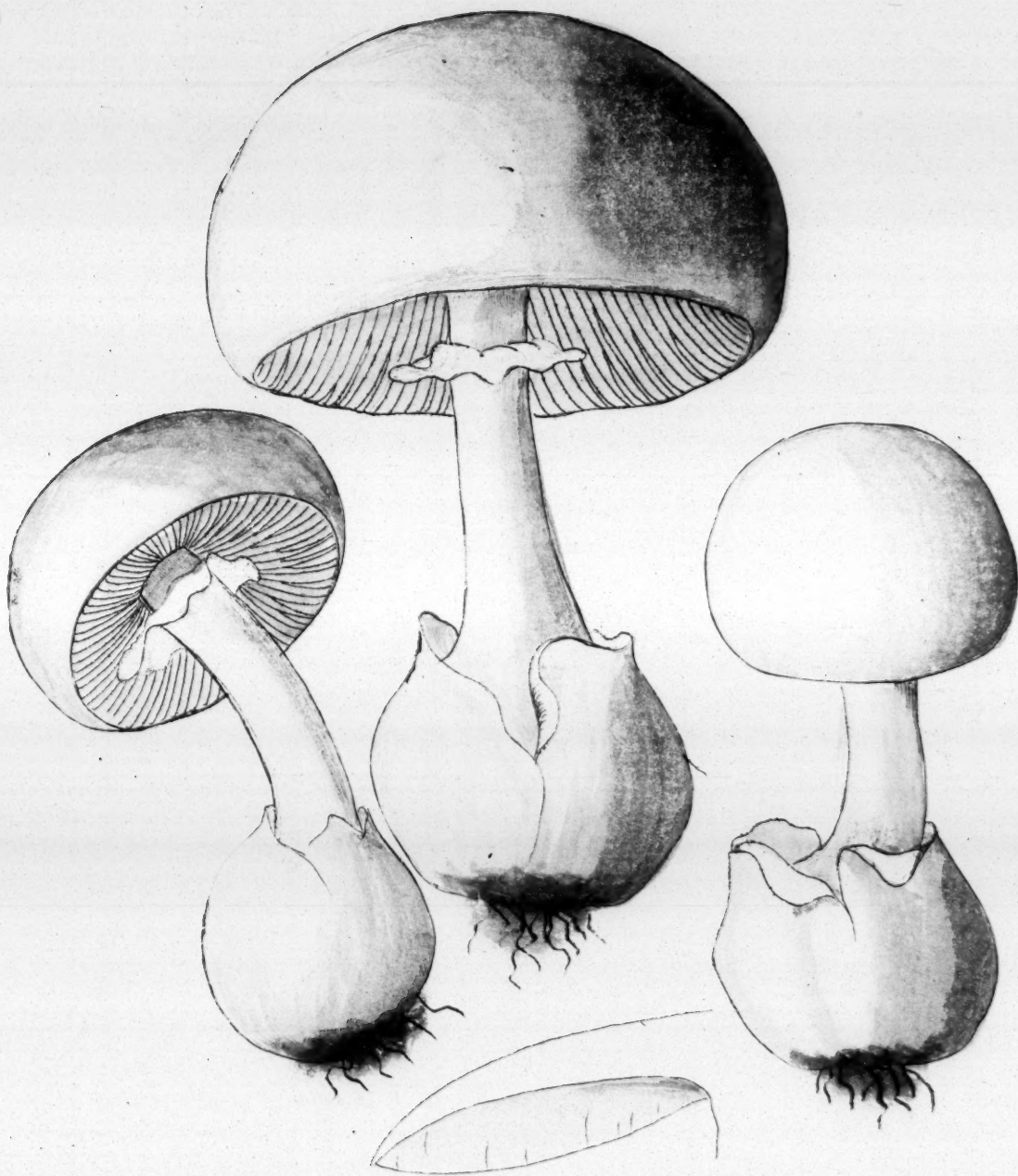
The first series of gills lance shaped at both extremities, not adhering to the stem; they are intersected by a second and third series, irregularly; are white and of a thin and delicate substance.

The pileus is at first globular, at last hemispherical; the surface smooth as fine vellum, and covered with a slippery, shining glutin; the flesh or internal substance is soft, white, and dawning.

I have seen a large variety of this species wherein the curtain was wanting, and the stem covered from top to bottom with a kind of loose cottony dawn.

Grows in woods about *Halifax*, both in spring and autumn.

I have named it *vernalis* rather than *bulbosus*, because HUDSON has already given the latter name to a very different species. —It is of a poisonous quality, and many have suffered by eating it. The most approved cure, according to BULLIARD, is first of all to take an Emetic, and afterwards ten or twelve drops of Vitriolic Æther in wine; if this should not succeed, bruise a clove of Garlic in milk, and give it to the patient.



Agaricus



AGARICUS *stipitatus*, pileo pulvinato subviscido margine integro striato, lamellis minoris basi truncatis,—volva lata lobata permanere, velo nulla. LVI. *pulvinatus.*

CUSHION AGARIC.

T A B. XLIX.

THE root is bulbous, large, and surrounded with a large, thick, lobed, grey, dawning volva, which remains till the decay of the plant; it emits fibres from its base.

The stem solid, upright, round, smooth, and of a dead dark grey colour; it is thick and gross at first, but decreases in thickness as it advances in height. There is no curtain.

The gills are arranged in three series, and are straight or even on the edges, making the under surface plain or flat; the first series terminate in a point at the base, and do not adhere to the stem; those of the second and third series are cut off at the base by a right line obliquely, by which peculiarity the species is at once distinguished.

The pileus at first globular, and glutinous, afterwards becomes cushion-shaped and dry; the margin even, and strongly striated; the surface is of a cloth touch, and a kind of mixed brownish mouse colour; the internal substance white and spongy.

This species is rare about *Halifax*; it grows in woods, in shady moist places. The specimen here described, I gathered in *Ramsden*, September 27, 1787; and have seen the plant in some other woods in this neighbourhood.

LVII. AGARICUS *totus luteus, stipite subbulbofo annulato, pileo obtuso luteus. conico piloso squamoso, velo araneoso, substantia sicca.*

YELLOW COTTONY AGARIC.

T A B. L.

THE root is a misshapen piece of fungous matter, covered with innumerable grey mouldy fibres, and produces numerous plants in succession.

The stem is swollen or bulbous at the base, diminishing gradually upwards.

The curtain is extremely delicate and tender, breaks and vanishes while the plant is young; it originates in a dawny annulus or ring, which surrounds the stem, and abides after its disappearance.

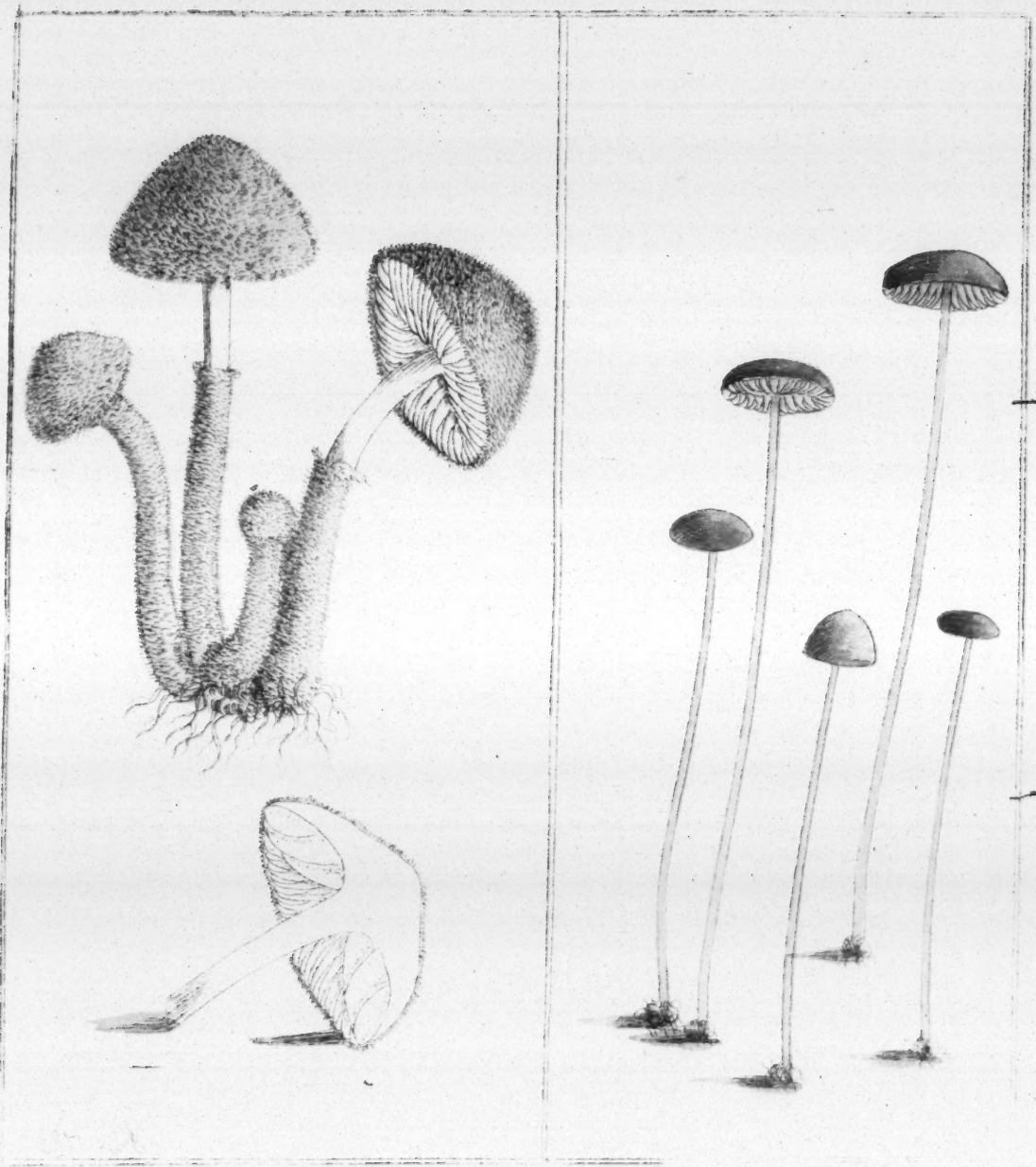
The gills arranged in one series, numerous, lance-shaped, not adhering to the stem, the substance light, tender, and delicate.

The pileus cone-shaped, blunt at top, in its infancy wrapped up in a dawny volva or epidermis, which is proper to itself, and which is broken by the increase of its growth, and remains in little, soft, cottony tufts on the surface; the margin is irregularly waved and undulated, and in the last stages of the plant becomes striated.

The whole plant is of a bright yellow colour, and of a dry, light, cottony substance.

The specimen here figured and described, grew amongst the bark in the pine-stove belonging to J. CAYGILL, Esq; at *Sha*, near *Halifax*, in August, 1785.





AGARICUS *stipitatus*, pileo subconico sicco elastico, lamellis paucis trifidis, stipite prælongo gracili.

LVIII.
atro-rufus.

LITTLE DARK - BROWN AGARIC.

T A B. LI. FIG. I.

THE root is a little round tubercle, the size of a rapeseed, emitting a few dawny fibres.

The stem is cylindrical, filiform, dry, elastic, and of a brown colour. There is no curtain.

The gills are in three series, few in number, tough, pliable, and of a reddish brown colour.

The pileus bluntly cone-shaped or convex, smooth, dry, and of a dark brown.

Grows in dry and barren pasture grounds, amongst various kinds of moss.

AGARICUS *stipitatus luteus*, stipitis parte inferiore et pileo conico villosis, lamellis albis numerosis densis.

LIX.
croceus.

SAFFRON - COLOURED AGARIC.

T A B. LI. FIG. II.

THE root consists of a multitude of dawny fibres, adhering to a misshapen piece of fungous matter, which sends up numerous plants in succession.

The stem is round, upright, solid, three inches high, and the greatest part thereof, as well as the whole surface of the pileus, is covered with a close nap or hairy dawny covering, of a pale saffron colour, which serves the purpose of a volva to the pileus and stem, but does not enwrap the root.

When the rim of the pileus begins to unfold, the volva breaks, and the stem afterwards increasing in length, is naked, and of a pale yellow above.

The gills are arranged in three series, they are white and numerous.

Grows in the *Burks*, and other woods about *Halifax*.

LX. *AGARICUS stipitatus, pileo rimoso: margine violaceo tomentoso, stipite cærulescente, lana ferruginea. Linn. Sp. Pl 1641.*
violaceus.

VIOLET COLOURED AGARIC.

T A B. LII.

THE root is swelled, and approaching to a bulb-shape; it is firm, hard, solid, and sends out many capillary fibres, of a pale brown colour.

The stem is of a pale purple colour, firm and solid, easily divisible in fine, pale, purple, silky filaments, and near the root is covered with a rust coloured dawn.

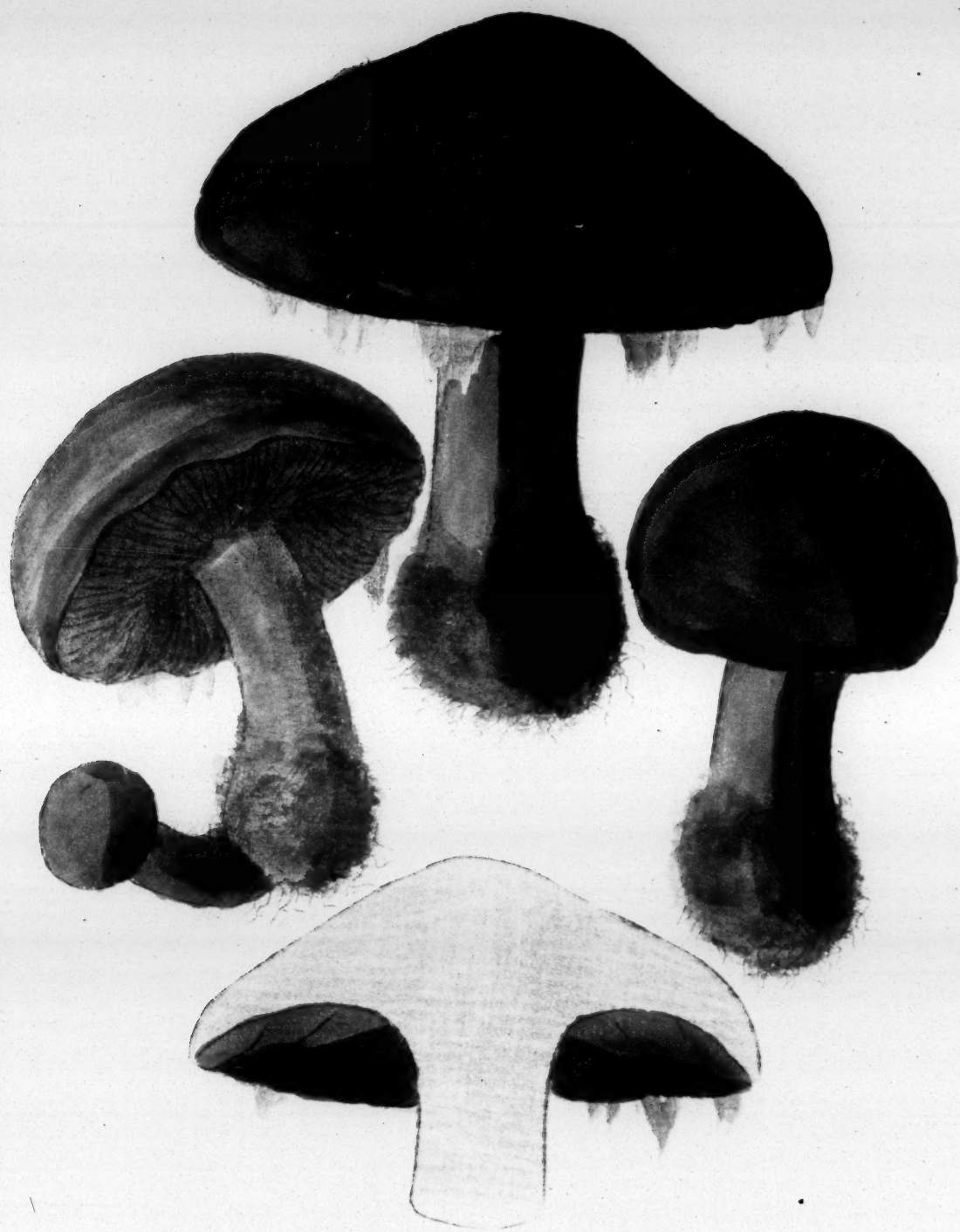
The curtain is like a fine and tender spider's web, soon breaks and vanishes, leaving no remainder; it is of a brownish rust colour.

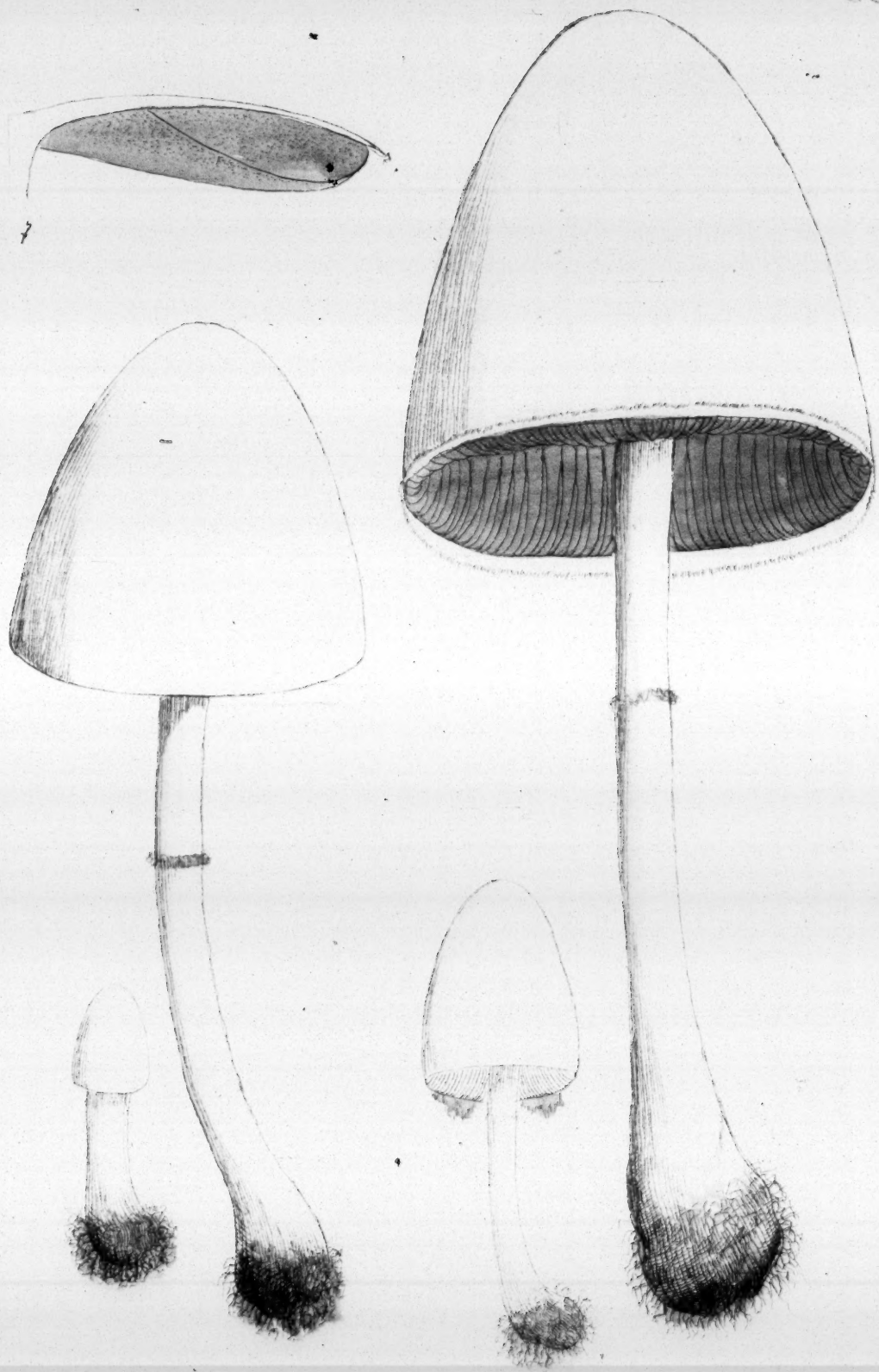
The gills are arranged in three series, but irregularly, they are deep, membranaceous, and gently waved on the edges; the colour is a violet blue, turning brown in decay.

The pileus at first hemispherical, afterwards convex; the rim a little waved; the surface soft and clothly to the touch; while young of a full violet purple colour, but changes to a pale brown or rust colour; this change first takes place at the centre of the pileus, and gradually prevails till the purple is quite lost even to the margin; at last the pileus lacerates, and the whole dissolves in a turbid stinking jelly, of a sordid brown colour.

Grows in *Woodhouse-Wood*, and some other woods about *Halifax*, in August and September, but not plentifully.

23





AGARICUS *stipitatus*, pileo conico primo tecto pulvere niveo, LXI.
 postea glutinoso, margine ciliata, lamellis trifidis nigris, stipite
 bulboso. ciliaris.

EYELASHED AGARIC.

T A B. LIII.

THE root is swollen so as to approach to a bulb-shape, and emits numerous black fibres.

The stem is hard, cylindrical, solid near the base, but fistular, with a small perforation, near the top; it is round, smooth, firm, and five or six inches high; easily splits in fine slender filaments, is white, and sometimes covered with a grey powder.

The curtain breaks and vanishes while the plant is young, leaving a grey indistinct annulus on the stem.

The gills are of a footy grey, arranged in three series, irregularly; they are narrow at the base, and broad towards the external extremity, of a soft and tender substance.

The pileus while young (if the season is dry) is covered with a snow white powder, the particles whereof glitter when viewed in the sun, just like those on the petals of a white lily, or a narcissus:—this powder soon dissolves, and covers the pileus with a slippery glutin; at full growth it is of a conical shape, blunt at top, of a pale kind of straw colour, and a smooth vellumy surface. It is singular, in that the margin is extended beyond the extremity of the gills, and terminates in a short black ciliation.

Grows most frequently on fresh dunghills; sometimes I have seen it in pasture grounds.

It differs from *A. plicatus*, *striatus*, *luridus*, et *finetarius*, in that the gills are in several series, of unequal length; from the *A. clypeatus*, in magnitude, and in the blunt external termination of the gills; and from all others in the marginal fringe.

- LXII. *AGARICUS stipitatus, pileo campanulato fusco striato glabro, lamellis griseis margine crispis, stipite fistuloso. Hudson*
striatus. Angl. 617.

STRIATED AGARIC.

T A B. LIV.

THE root consists of a few fibres issuing from the bottom of the stem. Authors mention a taper root, running under ground, which I have not yet been able to discover.

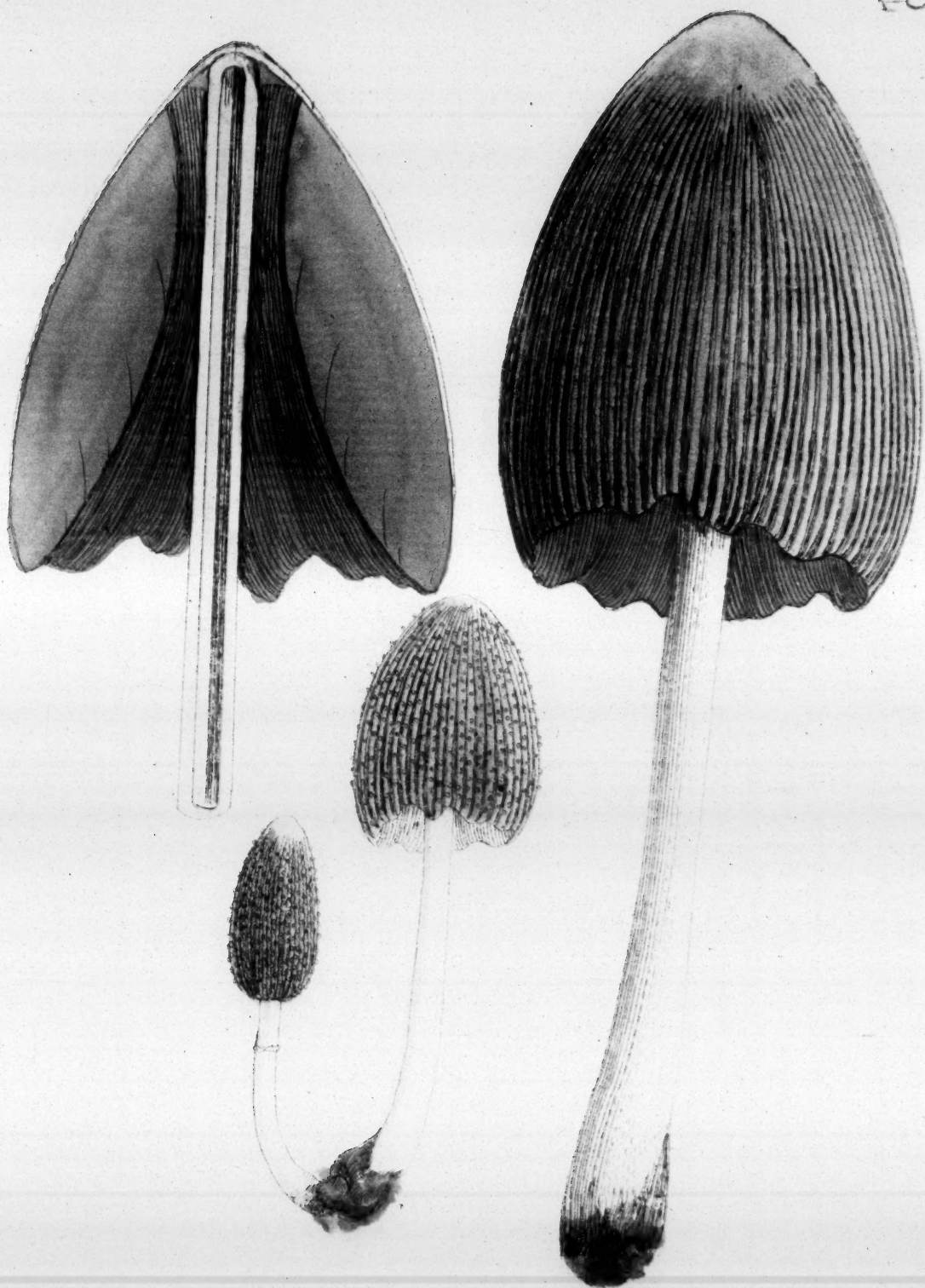
The stem is upright, white, fistular, gently tapering from the root, and five or six inches high.

The curtain vanishes as soon as the rim of the pileus begins to expand, leaving an obscure black mark on the stem, which soon vanishes.

The gills are all of equal length, broadest in the middle, and gradually diminishing to each extremity, where they are pointed; they are grey in the first stages of the plant, turning black in decay. In large specimens, when just ready to fall, the seeds are sometimes visible to the naked eye, lying like a red powder, on the edges of the half-dissolved gills.

The pileus is of an oval-shape, with one end lopped off; the rim is lobed and much contracted; the surface strongly striated, from the verge to near the summit, where it is smooth; the colour is generally a reddish brown, sometimes it inclines to an ash colour; and in very damp places, I have seen the pileus in young plants covered with pellucid grains, which, when rubbed off, feel sharp between the fingers.

The plant varies greatly in various soils; sometimes it grows singly on the ground, is large, and of a red brown; sometimes in vast clusters upon wet decayed wood; and is of a pale brown, ash colour or grey:—the whole at last dissolves in a black liquor.





J.B.

AGARICUS *stipitatus*, pileo convexo margine involuto, lamellis
trifidis decurrentibus, stipite adscendente.

LXIII.
adscendens
~~stipitatus~~

CURVED AGARIC.

T A B. LV.

THE root is hard, of a dark brown, sends out many black, hard, short fibres, and sustains one plant only.

The stem is hard, solid, of a brownish snuff colour, and about three inches high; it grows on the perpendicular surface of the broken earth, besides deep lanes and pathways in woods; it grows at first horizontally, and then curves gradually upwards.

The gills are in three series; those of the first running down the stem, in a narrow pointed base; they are numerous, of a dry pliable substance, and a pale brown colour.

The pileus is convex from first to last, very much rolled in at the margin, where it is smooth and entire;—a little above the margin, on the most prominent part of the pileus, all round about, is a band or belt of a velvety surface; it is about one fourth of an inch in breadth, more or less, in proportion to the size of the specimen;—above this, on the top or upper part, the pileus is smooth, and shines as if it were glazed:—the substance of the whole is hard, dry, and brittle; the colour a reddish brown.

This plant agrees with the *A. lactifluus* in some particulars, but differs from it in having the stem constantly curved, in the velvety belt on the pileus, and in that the whole is of a dry substance, and yields no milk.

Grows in the *Burks*, and other woods about *Halifax*, in September and October.

LXIV. AGARICUS *stipitatus*, pileo convexo fulvo glabro, lamellis trifidis
fulvofus. remotis crassis decurrentibus, stipite solida basi acuminata.

FULVOUS AGARIC.

T A B. LXIV.

THE root consists of a few fibres, issuing from the pointed termination or origin of the stem; the part from which these fibres issue, in this as well as most other Agarics, is covered with a mucor-like downiness, which possibly may be the remains of a volva, which covered the plant when in a state of embryo, too minute for our observation.

The stem is round, upright, solid and firm; it is easily divided into fine slender filaments, of a shining white; it tapers near the root, where it terminates in an obtuse point; it is a pale kind of buff colour, nearly white.

The gills are in three series, gross, remote, arched, and adhering to the stem by a broad decurrent base; the colour is a pale, pleasant, fulvous brown.

The pileus is of a globular shape at first, in the progress becomes hemispherical, and lastly horizontal; sometimes the rim rolls back, so as to shew the points of the gills all round, on the upper-side; the colour is at first a bright fulvous brown, growing paler as it advances in age, and in decay changes to a pale dirty white; the surface is smooth and silky to the touch.

Grows in dry and barren pasture grounds about *Halifax*, in September and October.





AGARICUS *stipitatus*, pileo hemisphaerico viscido, acuminato, LXV.
lamellis albis, stipite longo cylindrico albo. Sp. Pl. 1642. clypeatus.
 No. 16.—Hudson Angl. 691.

SHIELD or BUCKLER AGARIC.

T A B. LVII.

THE root is a little, oblong, hard tubercle, emitting a few black fibres.

The stem is hard, slender, cylindrical, the thickness of a duck's quill, and five or six inches high; it is solid, and covered with a whitish grey powder at first, afterwards it becomes fistular, and changes to a dark brown or blackish colour; the surface is smooth, and the substance easily divides in filaments like hemp.

The curtain is white, vanishes and disappears while the plant is young.

The gills are arranged in three series; those of the third adhering to the stem by a broad base, the rest pointed at each extremity, and broad in the middle; they are numerous, and of a thin, pliable, and very delicate substance; the colour at first a greyish white, turning black in the progress.

The pileus is hemispherical, sometimes terminating in a short conical apex; it is smooth, and while young of a dead white, and covered with a slippery glutin; when old it becomes dry, and changes to a brownish mouse colour; in decay the rim lacerates, and the whole turns black and dissolves. In dry seasons, I have sometimes seen the rim roll upwards, without breaking, and shew the points of the gills all round, on the upper-side.

There is a variety of this very frequent in meadows in this neighbourhood, which is throughout of a yellowish brown or buff colour.

- LXVI. *AGARICUS stipitatus, pileo hemispherico subpellucido, lamellis trifidis paucis angustis pellucidis, stipite parte superior glabro, inferior lanuginoso, basi arcuato.*
peronatus.

SPATTERDASHED AGARIC.

T A B. LXVIII.

THE root is flat, compressed, crooked or bowed, and adheres by numerous fibres to heaps of fallen decaying oak leaves, in moist and putrid places.

The stem is solid, firm, and tough; of a pale straw colour, and three inches high: the upper part is cylindrical and smooth, but from the middle downwards, it is surrounded with an erect cottony down or woolliness, of a bright yellow colour,—which not unaptly resembles the straw *spatterdash*, worn in time of snow by the mountaineers in *Yorkshire*.

The gills are in three series, few, thin, and narrow; those of the first series adhering to the stem by a narrow base; they are of a pale watery straw colour, and pellucid.

The pileus is hemispherical, acute at the rim, where it becomes waved when old; it is thin, semipellucid, and destitute of flesh; the surface feels clothly to the touch, and appears to the eye like a mixture of brown and white wool.

It is a rare species here; grows in the deep and moist parts of woods, amongst the fallen oak leaves. The specimens here figured and described, grew in a little wood, called *Trough of Bolland*, in *Northowram*, near *Halifax*, September 10, 1787.



Handwritten text, likely a description or label for the illustration.

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AGARICUS *stipitatus*, pileo et lamellis livido fuscis, centro umbilicate margine deflexo, stipite basi crassiore. Dixon Crypt. *sordidus*. LXVII.
P. 16. T. 3. F. 1.

SORDID AGARIC.

T A B. LIX.

THE root or base is a little thicker than the stem; it is hard, of a dark brown colour, and emits a few black fibres.

The stem is cylindrical while young, solid, and of a pale brown colour; afterwards becomes fistular, and changes to a dark sordid brown.

The gills are in three series, thin, narrow, and arched; those of the first series touching the top of the stem with a narrow base; they are pliable, tough, of a dusky brown, tinged with a fleshy hue.

The pileus is at first convex, a little waved round the rim; afterwards it becomes horizontal, next umbilicated in the centre, and lastly funnel-shaped; the surface is smooth, feels to the touch like vellum, shines a little, and is of a darkish mouse colour when at maturity; it is thin of flesh; the substance tough and leathern; it abides for a long time, and turns quite black in decay.

Grows in low meadows, where the grass is deep and the soil rich; it is a late species, being most plentiful in November and December.

To several drawings of this Agaric, which I have formerly made for my friends. I put the trivial *pezizoides*, but to avoid confusion, have here made use of *sordidus*, as given by my friend DICKSON.

- LXVIII. *AGARICUS stipitatus, pileo distorto mutante, fuscescente, acris. lactescente, lamellis trifidis, stipite compresso sulcata, basi angusto.*

GREY PEPPER AGARIC.

T A B. LX.

THE root consists of a few fibres issuing from the contracted base of the stem.

The stem is often crooked or leaning, it is compressed, sulcated, and uneven; largest at top, and diminishing downwards; it is firm and solid while the plant is young, when old it becomes fistular; it grows single or solitary, and is constantly of a pale greyish buff colour.

The gills are arranged in three distinct series; the first series about forty-five in number; they adhere to the stem by their base, are narrow, membranaceous, thin, and brittle; the colour is a pale buff, with a tinge of flesh.

The pileus is two or three inches diameter, very various in its shape; it is convex, horizontal, or umbilicated; the margin frequently lobed or waved, and sometimes deficient on one side; the colour is constant, being a kind of mixed grey, between mouse colour and buff; the substance of the flesh is white and brittle.

When the gills, pileus, or stem, are wounded, there issues a white milky fluid, of a hot acrid taste. This milk, when dried in drops, becomes a brownish gum, but retains little of its acrimony.

Grows in the shady parts of woods, but is rare in this neighbourhood. The specimen above-described, grew in *Woodhouse-Wood*, in August, 1787.

This is a species altogether different from the true *A. piperatus*. See Vol. I. P. 21. T. 21.





AGARICUS *stipitatus, pileo infundibuliforme margine elegantissime* LXIX.
crispato lobato fimbriato tenue albo semitransparente, lamellis *fimbriatus.*
trifidis longissimis angustissimis pellucidis, stipite gracile breve.

FIMBRIATED AGARIC.

T A B. LXI.

THE root consists of a few fibres issuing from the bottom of the stem.

The stem is about an inch high, smooth, solid, tough, pellucid, and of a dusky watery white colour.

The gills are arranged in three series, distinct, very long, very narrow, very thin and delicate; the substance is pellucid, tender, turning to a watery gelly, on being pressed between the fingers; the colour a greyish watery white.

The pileus at its first appearance is convex, afterwards becomes horizontal, and when at maturity funnel-shaped; the margin at all times waved, lobed, curled, and undulated in the most elegant manner; the surface is smooth as vellum, shines a little, by means of a moisture which is not glutinous, and is of the same colour as the stem and gills; the substance is thin, tender, and semitransparent.

I have seen this plant in several shady moist woods about Halifax. The specimen here described, I gathered in *Stump-Wood*, in *Northowram*, in August, 1787.

The substance and figure of this plant, distinguish it at once from all its congeners.—I find no satisfactory account of it in any author, since STEERBECK, who in his *Theater of Fungusses*, P. 119, calls it *auricula leporis alba*, and has given two figures of it. Plate 15, B. B.

LXX. AGARICUS *stipitatus, lamellis ramosis decurrentibus,*
chantarelus. Sp. Pl. 1639.

CHANTARELLE AGARIC.

T A B. LXII.

THE root consists of numerous dark-coloured hard fibres, by means whereof the plant is fixed pretty firmly to the ground.

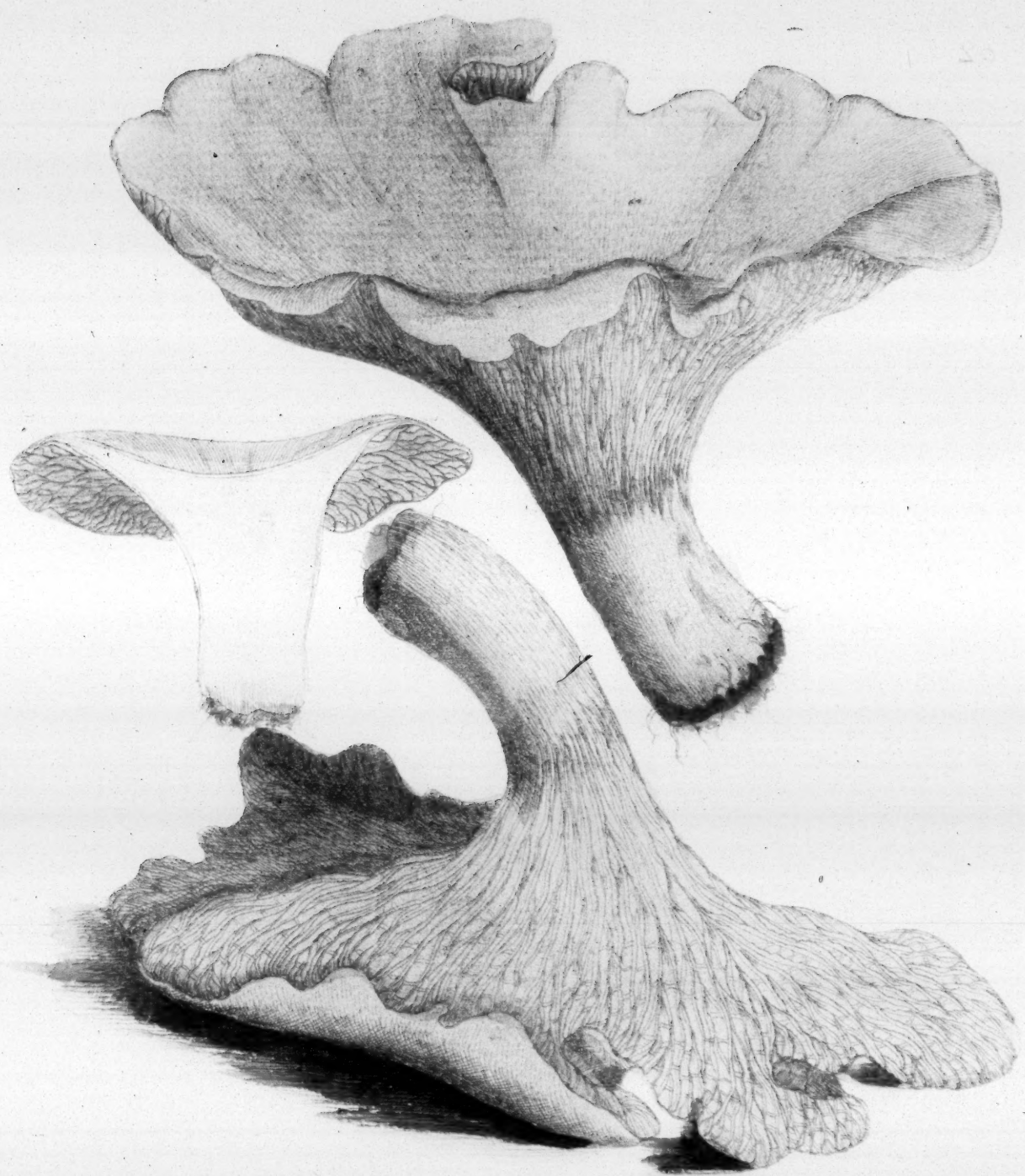
The stem is short, in proportion to the size of the plant; it is firm, solid, elastic, often compressed or sulcated, of a golden colour without, and a pale yellow within; it is fibrous, easily splitting in thin filaments.

The gills are like threads on the under surface of the pileus; they are divided and subdivided, like nerves in often repeated ramifications, shooting small lateral branches across the intervening spaces, especially near the margin; their substance seems to be the same with that of the pileus.

The pileus is of an irregular shape, lobed and curled in a rude and awkward manner, often deficient on one side, and variously distorted; the surface is smooth to the touch; the flesh tough, a little elastic, and tears in filaments of a pale shining yellow.

The whole plant is of a fine gold colour, but in decay it changes to a sordid brown, and at last dissolves. While young it is devoured by snails and other insects with great greediness.

It is in great esteem, as an esculent, in some countries, but is never admitted at table here, though it sometimes grows in sufficient plenty.





AGARICUS *stipitatus*, pileo subcampanulato levi, lamellis
stipitague violaceis. Hudson Angl. 612, 8.

LXXI.
amethystinus.

AMETHYST AGARIC.

T A B. LXIII.

THE root is brown, roundish, thicker than the stem, and furnished with a great number of grey dawy fibres, of a mould-like substance.

The stem is fistular, brittle, often crooked or bent in various directions, about the thickness of a goose quill, and is a little swelled just under the pileus; while the plant is young it is of a reddish purple, and covered with a bloomy dawn or powder, afterwards changes to a fordid brown, becomes twisted and sometimes wrent; the height is four or five inches, and frequently three or four roots are entangled together by their fibres.

The gills are in three series, irregularly waved on the edges, gross, brittle, and few; they are broadest at their base, where they terminate in a claw, which is inserted into the top of the stem, but in the last stages of the plant, when the rim of the pileus is elevated, the claw breaks, and the gills adhere to the pileus only; they are purple, and covered like the stem with a bloomy powder.

The pileus is destitute of flesh, from one to two inches diameter; at first convex, the rim contracted and waved, afterwards becomes irregularly horizontal, at last the margin turns up, becomes lacerated, changes from a purple to a brownish straw colour, and at last falls and dissolves in a brown turbid gelly.

Grows plentifully in moist, steep, rocky woods, about *Halifax*, and continues in succession from August to November.

- LXXII. AGARICUS *stipitatus*, pileo convexiusculo carneo fusco, lamellis
farinaceus. *convexis distantibus incarnatis pulverulentis, stipite longo.*
Hudson Angl. 616, 26.

POWDERED AGARIC.

T A B. LXIV.

THE root is compressed, irregular, a little thicker than the stem; it is of a dark brown colour, hard, and firm, emitting mouldy grey fibres.

The stem is crooked, smallest in the middle, fistular, with a small perforation, easily splits in filaments, is of a sordid brownish flesh colour, and three or four inches high.

The gills in three series, few, gross, and brittle; the first series about twenty in number; they are crumpled or waved on the edges, of a brownish dusky flesh colour, and, together with the stem, are covered with a mealy powder, of a pale greyish flesh colour.

The pileus is convex, when full grown an inch and half in diameter, the rim gently waved; it is, like the other parts, of a brownish flesh colour, but not powdered; the surface is soft, and feels to the touch like fine woollen cloth wetted; the substance is thin, watery, and pellucid; the whole falls and rots, of a dirty brown colour.

It is not a common plant here. The specimen before me, I gathered in *Old-Lane-Wood*, near *Halifax*; I have also seen it in *Woodhouse-Wood*, and in the plantations about *Fixby-Hall*.

In number and figure this plant very much resembles the *A. amethystinus*; I can find no character of distinction between them, except colour, and am therefore inclined to think, that this is no more than a variety of it; but as several authors have considered it as a distinct species, I have taken the liberty to give it a place in this History.



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AGARICUS *stipitatus*, pileo pallido, disco stellatini luteo, lamellis sulphureis. Sp. Pl. 1642, 13. LXXIII. equestris.

STARRY AGARIC.

T A B. LXV.

THE root is hard, brown, and globular; furnished with a multitude of brown capillary fibres; it sustains one plant only.

The stem is upright, smooth, cylindrical, fistular, and four inches high; the substance thin, delicate, and easily splits in slender shining fibres or filaments; there is a fibrous or dawy matter in the perforation; the colour is a pale dusky yellow.

The gills regularly arranged in three series, of a semioval shape, pointed at both extremities, and do not adhere to the stem; they are numerous, thin, pliable, delicate, and of a pale yellow with a tinge of green; sulphur coloured.

The pileus is at first of an oval shape, afterwards convex; sometimes the apex projecting in form of a blunt point; the colour is a pale kind of yellowish, with a cast of buff, the apex a little darker:—when the plant is young the pileus is slightly glutinous, afterwards becomes dry and is smooth; in decay the rim changes to a dusky hue, which hue gradually shoots towards the middle in concentric points, forming the appearance of a yellow star, of ten or twelve rays, in the centre; at last the whole becomes dusky, and falls and dissolves, in about the space of two days from its first appearance.

Grows in meadows and pasture grounds about *Halifax*, in July and August.

This plant seems nearly related to the *A. clypeatus*, and may possibly be a variety of it.

- LXXIV. AGARICUS *stipitatus*, pileo conico obtuso, colore vario cinorio
varius. *griseo sive nigro, lamellis trifidis stipite filiforme.*

VARIABLE AGARIC.

T A B. LXVI. FIG. I.

THE root consists of an hard tubercle, the size of a rape-seed; it is furnished with numerous short fibres.

The stem is cylindrical, fistular, the thickness of a swallow's quill, white, but dusky near the root, and three or four inches high.

The gills are arranged in three series, and run into a point at the base; the first series adhering to the top of the stem by a small claw.

The pileus is generally grey, but subject to great variety in its colours, being sometimes ash coloured, dusky pale brown, or of a full sooty black.

Grows amongst the grass in pasture grounds, in October.

- LXXV. AGARICUS *stipitatus*, pileo conico acuto ruber-fusco, lamellis
cuspidatus. *subfuscis basi angustis, stipite fistuloso.*

POINTED AGARIC.

T A B. LXVI. FIG. II.

THE root is a round hard tubercle, furnished with numerous fibres.

The stem cylindrical, smooth, upright, hard, of a brownish hue, and four or five inches high; it is fistular, with a very small perforation, and easily splits in fine filaments.

The gills are in three series, of a pale dusky brown, a thin pliable substance, and pointed at the base.

The pileus is acutely cone-shaped, the rim even and entire, the surface smooth, and silky to the touch; of a pretty reddish brown, inclining to a cinnamon colour.

Grows in fallowed fields, where the weeds have been burnt, in woods, or places where charcoal has lately been made.





GROWING ABOUT HALIFAX. 67

AGARICUS *stipitatus*, pileo convexo pallide luteo, lamellis trifidis numerosis profundis stipite solido fragile, velo fugaceo. LXXVI.
durus.

HARD AGARIC.

TAB. LXVII. FIG. I.

THE root consists of a number of fibres issuing from the hard compressed bottom of the stem.

The stem is round, solid, two inches high, and of a pale whitish buff colour.

The curtain is very delicate and tender; it is white, and breaks and vanishes in the infancy of the plant.

The gills are extremely numerous, deep, semioval, and regularly arranged in three series; they are thin, and of a pale greyish colour.

The pileus is convex, even, and smooth at the rim; the surface smooth, of a pale dusky yellow, and feels like vellum; the substance of the whole plant very hard and brittle.

AGARICUS *stipitatus*, pileo convexo viscido aurentio, lamellis luteis, stipite nudo. Lightfoot, Scot. 1025. LXXVII.
aurentius.

CHERRY AGARIC.

TAB. LXVII. FIG. II.

THE root is hard, compressed, of a brownish colour, and furnished with a few fibres.

The stem often compressed and crooked; it is hollow, of a thin substance, easily splitting, of a pale yellow within, and a golden or orange colour on the outside.

The gills are in three series, remote, of a tender substance, terminating in a narrow point at the base, and varying in colour from a pale yellow to an high orange.

The pileus irregularly cone-shaped or convex, of a brittle substance, glutinous, and when young of a full bright cherry colour, turning pale as it advances in age.

Grows in dry and barren pastures, frequent, about Halifax.

LXXVIII. AGARICUS *stipitatus, pileo subconico pallide-stavo margine laceratus. lacerato, lamellis trifidis latissimis basi angustis, stipite fistuloso contorto.*

RENT AGARIC.

T A B. LXVIII.

THE root, as in most others, consists of a tuft of slender soft fibres, issuing from the bottom of the stem.

The stem is as thick as one's little finger, of a pale clay colour; the substance is thin, and readily splits in slender fibres; it is often compressed, sulcated, or twisted, and is three or four inches high.

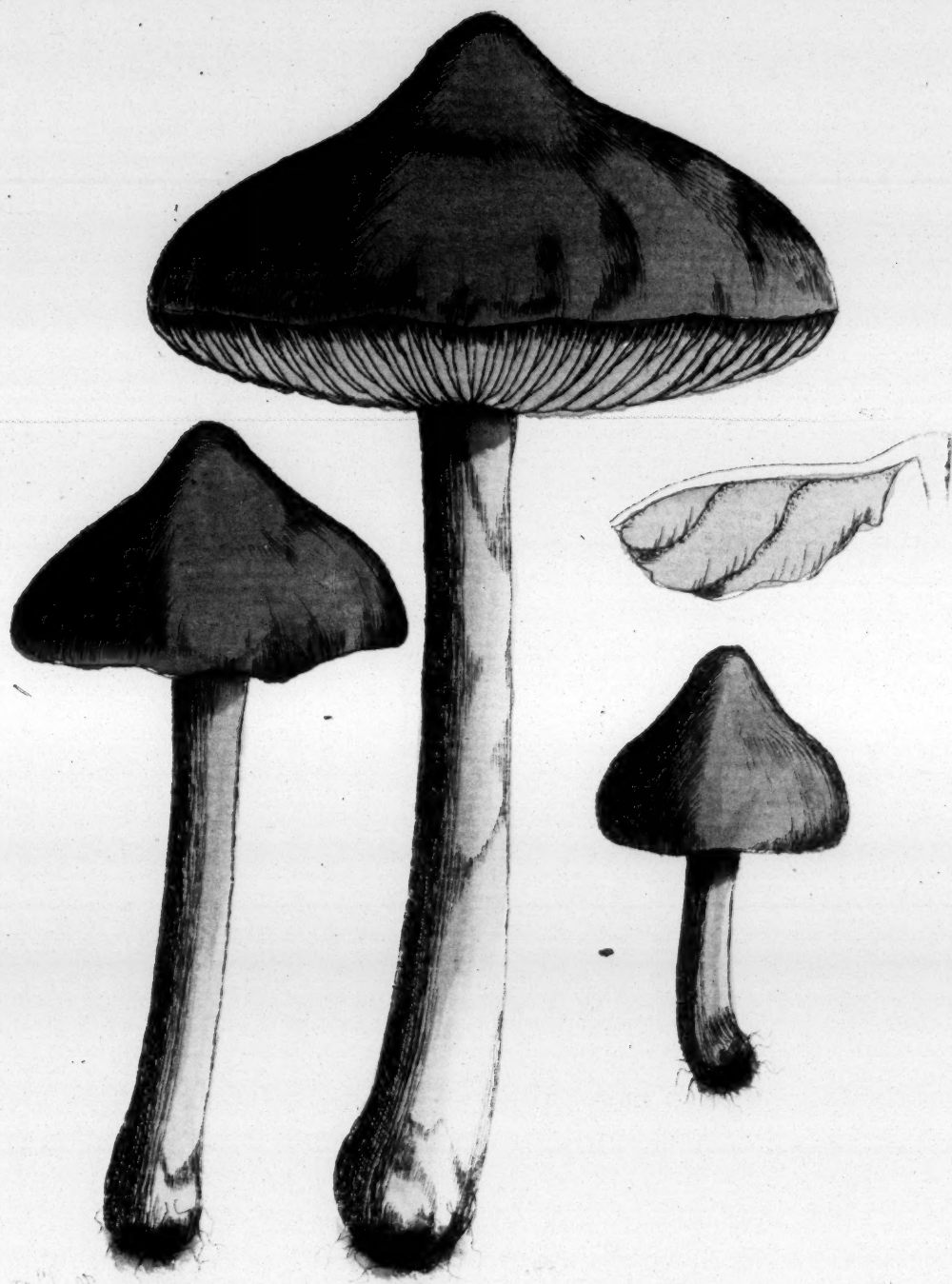
The gills are irregularly arranged, sometimes there are three series, sometimes only two; they are extremely broad towards the external extremity, and run out into a narrow point at the base; they are a little waved at the edges, of a tender soft substance, and a pale, greenish, yellow hue, or primrose colour; pressed between the fingers they turn to a slippery gelly, of no unpleasant smell.

The pileus is obtusely cone-shaped; the surface a pale yellow, dry, smooth, silky, and shining; when at maturity it splits or lacerates, the rents reaching almost to the centre, the divisions rising up at the rim, and abiding for some days in an horizontal position; it is destitute of flesh, and dissolves in decay.

Grows on dry banks and in barren pastures about *Halifax*, but rarely.

Though this plant is sometimes deficient in the third series of gills, it will nevertheless arrange with those of three series, because it is found with three more frequently than with only two; every specimen having more or fewer of a third series in it, and sometimes all three compleat.





AGARICUS *stipitatus*, pileo convexo acuminato griseo, lamellis
convexis griseis crenatis stipite nudo. Sp. Pl. 1642, 15. LXXIX.
mammosus.

BREAST AGARIC.

T A B. LXIX.

THE root consists of black hard fibres, issuing from the obtuse base of the stem; it is solitary, and sustains one plant only.

The stem is upright, round, hard, firm, and solid; of a grey brown above, paler near the root; half an inch in diameter, and four or five inches high; the substance within is white, and easily splits in fine slender filaments.

The gills are arranged in three series, very broad, of a pellucid substance, and a pale dusky grey, with a tinge of flesh colour: their figure approaches to a semicircle, the base not touching the stem; they are waved on the edges near the extremity; near the base they are crenated. In the specimen before me, there is one manifest dent or tooth towards the base, in those of the first series; in those of the second and third no dent or tooth, but only a gentle waving.

The Pileus is convex, terminating in a nipple-like beak or point at top; the colour is constantly of a dusky grey, with a tinge of reddish brown; and the surface looks and feels like fine woollen cloth: it is about three inches diameter in a full grown plant, and is destitute of flesh, except just under the beaked top where the stem is inserted; it dissolves in decay.

This specimen grew in *Bracken-Bed-Wood*, near *Halifax*, September 1, 1787.

LXXX. AGARICUS *stipitatus*, pileo *globoso castaneo*, *marginē lobata incurvo*, *lamellis trifidis undulatis*, *stipite gracile albo fistuloso*.
 nucus.

HASLE-NUT AGARIC.

T A B. LXX.

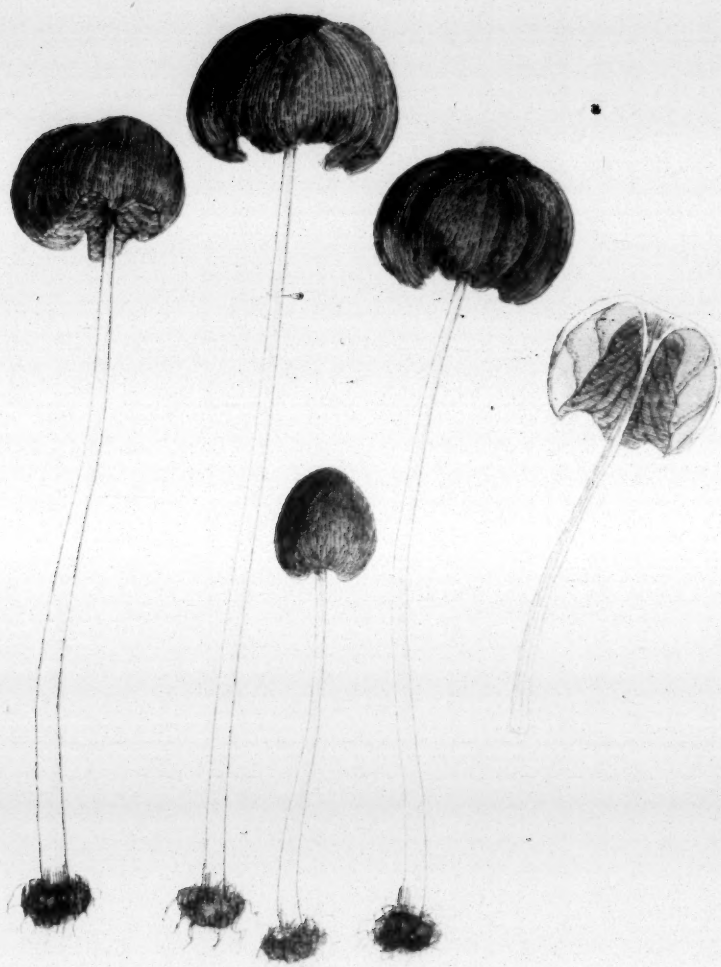
THE root is an hard tubercle, furnished with fibres of a mouldy grey colour.

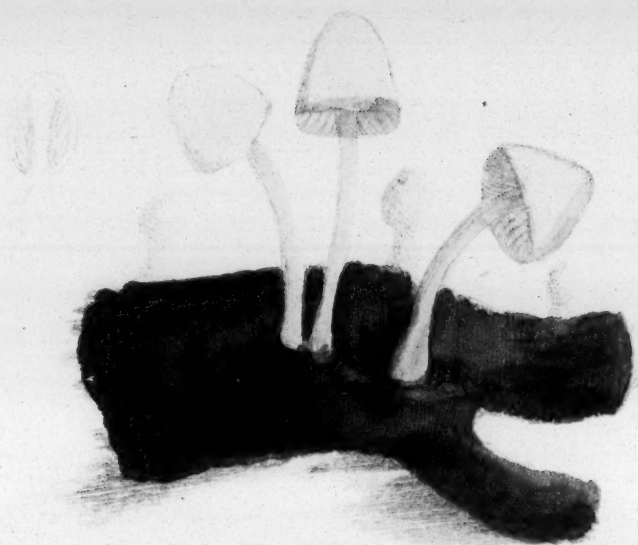
The stem is upright, fistular, of a pale dead white, and about the thickness of a crow's quill near the root, growing gradually smaller upwards; the height is about four inches; the substance thin, tender, and easily splitting in small shining filaments.

The gills are arranged in three series; they are broad and thin, gently waved on the edges, and touch not the stem with their base; the substance is thin and delicate, and the colour a pale pretty brown.

The pileus the size and colour of a Spanish hasle-nut; the top umbilicated, the margin lobed and very much rolled in, so as to touch the stem, or even to pass by it; the opposite lobes pressing against, or lying over each other. It is destitute of flesh, of a dry pliable substance, and a smooth, dry, silky, shining surface.

This species came up in abundance, amongst the young fir trees in the new plantation near *Mount Pellon*, in October, 1787; I have seen it in other places, in dry and barren soils, amongst heath and furze bushes.





AGARICUS *stipitatus*, pileo campanulato obtuso fusco flavifcente, lamellis atro-griseis, stipite fistuloso griseo villoso. Hudson Angl. 619, 36. LXXXI. *aqueus.*

WATERY AGARIC.

T A B. LXXI. FIG. I.

THE whole plant, while young, is wrapped up in a soft dawny covering, which breaks and falls off, when the specimen has acquired about half its height; it first vanishes on the pileus, abiding longer on the stem, to which it gives a woolly appearance.

The stem is an inch high, fistular, and of a dusky white.

The gills are in three series, white at first, and turning brown in decay.

The pileus is glutinous, bell-shaped, of a pale dusky yellow, and smooth surface; the whole plant is of a tender, watery, pellucid, substance.

In 1784, specimens of this plant, in an advanced state, were brought me, growing on putrid wood, found under the sprinklings of the stream of *Elm-Cragg-Well*, at *Bell-Bank*, near *Bingley*; and I saw it in the same place, in all its states, in April, 1788.

Agarics, halved, not supported on a central stem.

AGARICUS *substipitatus*, pileo albido levi, lamellis subsimplicibus pallidis stipite laterali. Hudson Angl. 624, 51. LXXXII. *lateralis.*

L A T E R A L A G A R I C.

T A B. LXXI. FIG. II.

THIS plant adheres sometimes by the side of the pileus, sometimes by a short lateral foot-stalk to decaying branches and trunks of trees.

The pileus is convex, smooth, and of a pale dusky buff colour; the size is from one to two inches diameter; the substance tough and elastic.

The gills in young plants simple, in those of older growth bifid; they are numerous, tough, and of a pale brownish buff colour.

The figure on plate 71, is an exact representation of the plant, as it grew on the decaying stock of an elm tree, in August, 1779.

LXXXIII.

betulinus.

AGARICUS *acaulis coriaceis villosus margine obtuso, lamellis ramosis anastomosantibus.* Sp. Pl. 1645.

BIRCH AGARIC.

TAB. LXXII. FIG. I.

THIS adheres to putrid wood, sometimes by one side of the pileus, but more frequently by a short lateral foot-stalk, which gradually expands into the substance of the pileus. It grows solitary, or in imbricated clusters.

The pileus circular, but deficient on the radical side; it is shaped just like a leaf of the *Soldonella alpina*; the surface covered with a buff-coloured cottony down; the margin blunt, and rolled in.

The gills very numerous, thin, and narrow; divided and subdivided, in numerous fine and almost imperceptible branches. In old specimens, the margin sometimes becomes lobed and gashed, and the colour changes to a dusky brown.

It is of a tough elastic substance, and abides the year round.—Grows in *Woodhouse-Wood*, &c.

LXXXIV.

fabellatus.

AGARICUS *acaulis parvis niveis, lamellis simplicibus.*—*Amanita sessilis, minimus albus.* Hall. Hist. 2335.

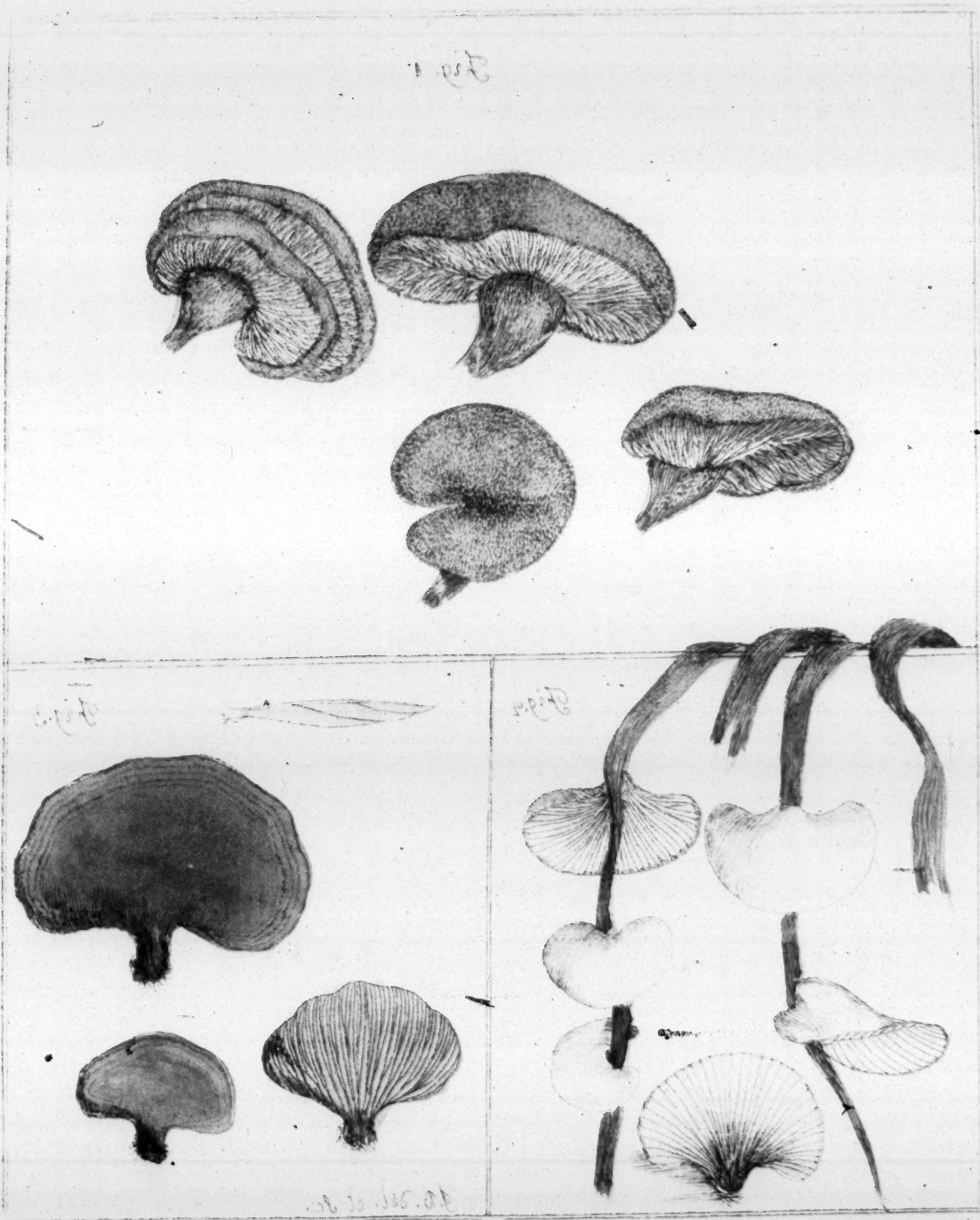
WHITE FAN AGARIC.

TAB. LXXII. FIG. II.

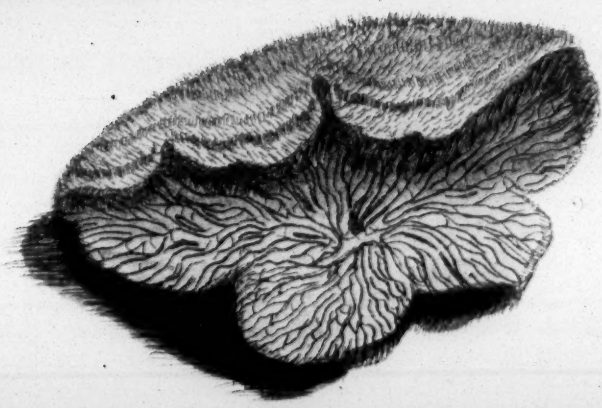
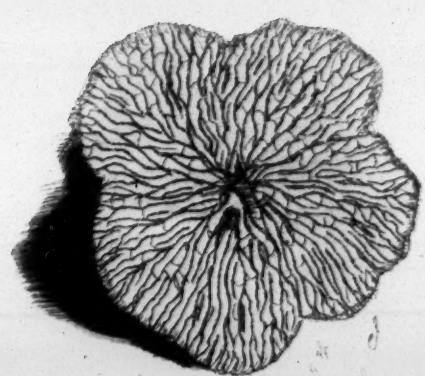
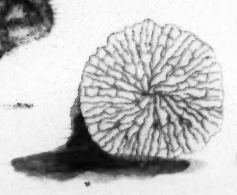
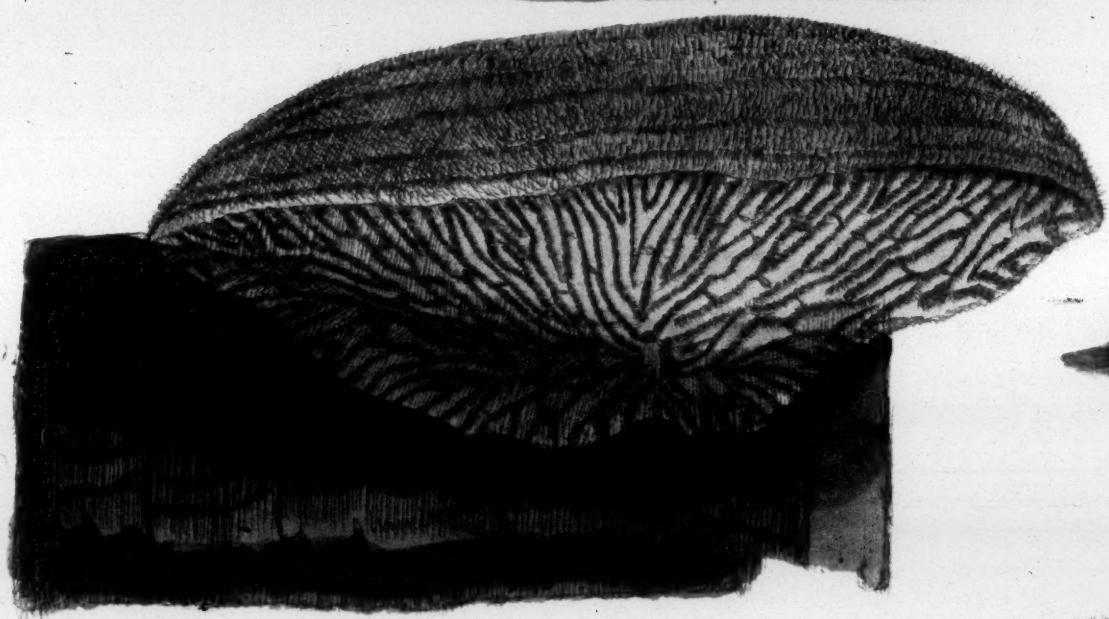
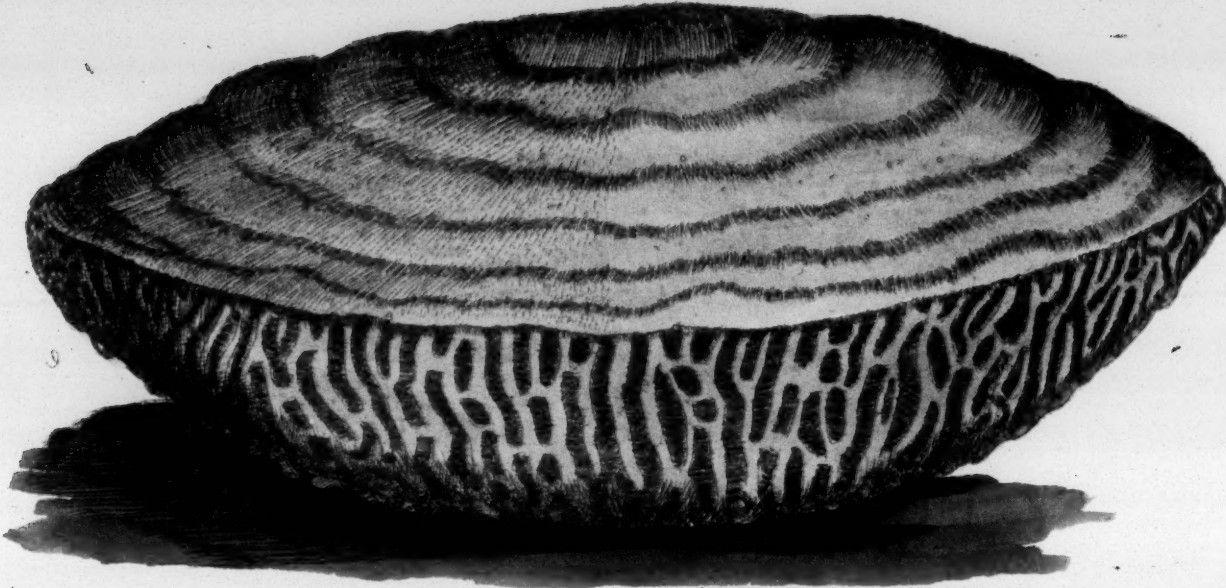
THIS adheres by a claw, like the beak of a bevalve shell, to the stalks of withered plants, or the blades of grass in moist and putrid situations; the upper surface is convex at first, and when magnified appears dawning; when full grown becomes nearly flat and fan-shaped.

The gills are few, remote, and simple. The whole plant is white, and of a tender, watery, pellucid substance.

The specimens here described and figured, I gathered in *Kebroyd-Wood*, in *Soyland*, near the *Brook*, in September, 1777; and have since seen it in several like places.



CT



From the collection of the British Museum, London. 1888.

AGARICUS *acaulis erectus planus, lamellis trifidis lanceolatis.* LXXXV.
planus.

FLAT AGARIC.

T A B. LXXII. FIG. III.

THIS is of a semicircular figure, the margin waved, the surface smooth, of a brownish mouse colour, and marked near the edge with three or four narrow concentric lines, of a darker colour.

The gills are arranged in three series; they are thin, pliable, lance-shaped, and the same colour as the pileus. The substance is soft and tender.

Of this plant I found many specimens, growing erect on the ground, in a steep field by the footway leading from *Elland* to *Mills-Bridge*, in October, 1787.

AGARICUS *acaulis, lamellis labyrinthiformibus.* Sp. Pl. 1648. LXXXVI.

OAK AGARIC.

T A B. LXXIII.

THIS plant in the first stages of growth is of a circular figure, *a. b.* growing flat, with the gills upwards; the gills at this time are distinct and branched, their sides united by small lateral projections, which are hardly visible to the naked eye: as it advances in growth a part of the side which has adhered to the wood, and is hairy, *c.* gradually separates from it, and takes an horizontal position; after this the horizontal part continues to grow and increase, *d.* the other part serving it as a base: in process of time, the small lateral projections increase in growth, so as to be equal with the gills in height and substance, thereby filling up the interstices, and transforming the gills into oblong pores. It varies greatly in size, from three to ten or twelve inches diameter, is perennial, of a woody nature, and a brownish cork colour; when old the surface becomes smooth, *as at e.* and the concentric circles more eminent.

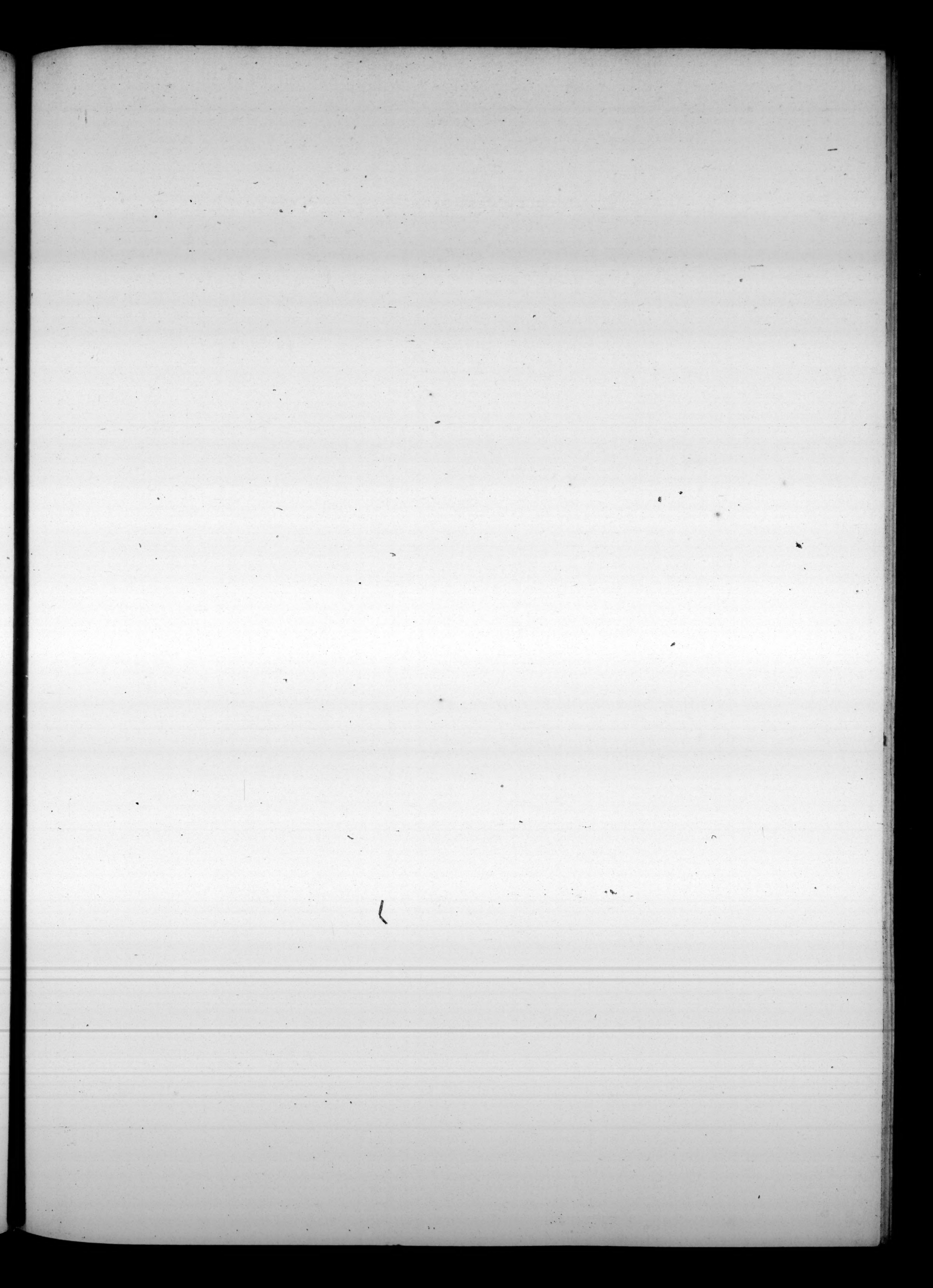
This plant makes the link by which the *Agarici* and *Boleti* are naturally united; and may with equal propriety be esteemed the last of the one, or the first of the other.

END OF THE AGARICS.

NOMINA TRIVIALIA

AGARRICI.

A	Plate	E	Plate	P	Table
A Tro-Rufus ————	51	Equestris ————	65	Purpureus ————	41
Adscendens ————	55	Eburneus ————	4	Procerus ————	37
Acris ————	60	Elephantinus ————	28	Plumofus ————	33
Amethystinus ————	63	Extinctorius ————	24	Politus ————	30
Aurentius ————	67	Elasticus ————	16	Piperatus ————	21
Aquosus ————	71			Pullatus ————	20
Androfaceus ————	32	F		Pompatus ————	5
Annulatus ————	23	Fascicularis ————	29	Pulvinatus ————	49
		Fimetarius ————	44	Peronatus ————	58
B		Fissus ————	35	Planus ————	72
Betulinus ————	72	Fulvus ————	56		
		Fimbriatus ————	61	Q	
C		Farinaceus ————	64	Quercinus ————	73
Chantarellus ————	62	Flabellatus ————	72		
Campestris ————	45			R	
Croceus ————	51	I		Radiatus ————	39
Ciliaris ————	53	Infundibuliformis ————	34	Rigidus ————	43
Clypiatus ————	57	Irregularis ————	13	Rubeus ————	36
Cuspidatus ————	66	Integer ————	1	Repandus ————	6
Cespitosus ————	41			S	
Clavus ————	39	L		Serratus ————	14
Candidus ————	39	Luteus ————	50	Striatus ————	54
Campanulatus ————	31	Laceratus ————	68	Sordidus ————	59
Cinnamoneus ————	33	Lateralis ————	71		
Confertis ————	18	Luteo-albus ————	38	T	
Concinneus ————	15	Luridus ————	25	Tortilis ————	41
Ceruleus ————	12	Laricinus ————	19	Trilobus ————	38
Castaneus ————	10	Lactifluus ————	3		
Cornucopioides ————	8	Latus ————	2	V	
Cristatus ————	7			Villosus ————	42
		M		Verrucosus ————	47
D		Mollis ————	40	Vernalis ————	48
Durus ————	67	Muscarius ————	27	Violaceus ————	52
Domesticus ————	26	Membranaceus ————	11	Varius ————	66
Deliciosus ————	9	Mammofus ————	62		
Denticulatus ————	4	N		U	
		Nobilis ————	46	Umbelliferous ————	39
		Nuceus ————	70	Umbilicatus ————	17



ENGLISH NAMES

TO THE

AGARICS.

A Methyst — — — Plate 63

B
Bell — — — 31
Black-Stalked — — — 32
Bundled — — — 29
Blue — — — 12
Broad — — — 2
Brown-Red — — — 51
Breast — — — 69
Birch — — — 72

C
Crumpled — — — 41
Cinnamon — — — 22
Clustered — — — 18
Chefnut — — — 10
Cornucopia — — — 8
Crested — — — 7
Chantarelle — — — 62
Cushion — — — 49
Curved — — — 55
Cherry — — — 67

D
Dark-Red — — — 36

E
Egg — — — 44
Elephant — — — 28
Extinguisher — — — 24
Elastic — — — 16
Equal-Gill'd — — — 1
Eyelashed — — — 53

F
Feathered — — — 33
Fly — — — 27
Foul — — — 25
Funnel-Shaped — — — 34

Fulvous — — — Plate 56
Fimbriated — — — 61
Fan — — — 72

G
Green-Polished — — — 30
Grey-Pepper — — — 60

H
Hard — — — 67
House — — — 26

I
Ivory — — — 4
Irregular — — — 13

L
Larch — — — 19
Lateral — — — 71

M
Milky — — — 3
Mourner — — — 20
Membraneous — — — 11
Mushroom — — — 45

N
Navel — — — 17
Neat — — — 15
Noble — — — 46
Nut — — — 70

O
Orange — — — 9
Oak — — — 73

P
Purple — — — 41
Pin — — — 39
Pepper — — — 21
Pompous — — — 5
Powdered — — — 64
Pointed — — — 66
Plain — — — 72

R
Ringed — — — Plate 23
Rigid — — — 43
Rent — — — 68

S
Soft — — — 40
Splitting — — — 35
Serrated — — — 14
Shaggy — — — 42
Spreading — — — 6
Saffron — — — 51
Striated — — — 54
Shield — — — 57
Spatterdashed — — — 58
Sordid — — — 59
Starred — — — 65

T
Tooth-Gill'd — — — 4
Tall — — — 37
Trilobate — — — 38
Turf — — — 41

U
Umbrella — — — 35

V
Violet — — — 52
Variable — — — 66

W
Wheel — — — 39
White — — — 39
Warty — — — 47
White-Bulbous — — — 48
Watery — — — 71

Y
Yellow and White — — — 38
Yellow — — — 50

A N

Essay towards a Methodical Arrangement

O F

A G A R I C S,

W I T H

References to the *Synonyma*, or Figures of Authors.

*Such as are supported on a central stem (stipe), and have the gills
(foldlets) branchy.*

Trivial Name.	Plate.	
<i>Chantarelle</i> -	62.	G ILLS squat, decurrent; stem solid, plant gold coloured. <i>Linn. Sp. Pl.</i> 1639. <i>Hudson Angl.</i> 609.
<i>Infundibuliformis</i> }	34.	Gills squat, grey; stem trumpeted, plant mouse coloured. <i>Bulliard, P.</i> 208. <i>Ray</i> 19. <i>Schæf</i> 243, 212.
<i>Piperatus</i> -	21.	Gills raised, stem swollen, pileus (hat) funneled, plant white, brittle, milky. <i>Sp. Pl.</i> 1641. <i>Hudson</i> 613. <i>Schæf.</i> 97. <i>Haller</i> 2339. <i>Battarra, T.</i> 17. <i>A.</i>

Such as have the gills in a single series.

<i>Integer</i> - -	1.	Plant white, or tinted with bright colours. <i>Sp. Pl.</i> 1640. <i>Hudson</i> 611. <i>Hall. Hist.</i> 2373.
<i>Trilobus</i> - -	38.	Hat chefnut coloured, gills broad outwardly, radical volva large, abiding.
<i>Confertis</i> -	18.	Small, conical, white, growing in numerous clusters. <i>Hall. Hist.</i> 2345.
<i>Pullatus</i> - -	20.	Stem tall, white, fistular; hat at first grey, with a dawny covering, afterwards black, plaited, dissolving; root tapering. <i>Bulliard</i> 88. <i>Scop.</i> 1483. <i>Schæf. T.</i> 100.

- | Trivial Name. | Plate. | |
|---------------------|--------|--|
| <i>Extinctorius</i> | 24. | Plant white, hat extinguisher-shaped, apex blunt, no curtain. <i>Sp. Pl.</i> 1643. <i>Hudson</i> 617. <i>Hallar</i> 2342. <i>Battarra</i> , <i>T.</i> 27. H. |
| <i>Luridus</i> - - | 25. | Hat smooth, glutinous; gills blue grey, stem solid. I find no apt synonyma. |
| <i>Domesticus</i> - | 26. | Stem white, fistular in bundles; pileus brown, at first having a dawny covering, which abides in fragments. <i>Schæf. T.</i> 17. |
| <i>Fimetarius</i> - | 44. | Hat pyramidal, white, with growing scales; root bulbous, curtain vanishing. |
| <i>Striatus</i> - - | 54. | Hat brown, oval, strongly striated; apex smooth, gills black, curtain vanishing. <i>Vaill. Paris</i> , <i>T.</i> 12. <i>F.</i> 10, 11. <i>Schæf. Fung. T.</i> 67, 68. <i>Hudson</i> , 617. |
| <i>Luteus</i> - - | 50. | Wholly yellow, stems bundled, tapering; curtain vanishing, annulus abiding, hat cottony, rim lobed. I find no agreeable synonyma. |
| <i>Radiatus</i> - - | 39. | Small size, hat first conical, brown, afterwards flat, black, wheel-shaped, with rays. <i>Hudson</i> , 621. I believe this plant to be what he intends by his <i>A. tennellus</i> ; but his synonyma from <i>Pluk. Pb.</i> and <i>Ray Syn.</i> do not belong to it, for they evidently describe a mucor. |
| <i>Clavus</i> - - | 39. | Small size, hard, opaque, pileus orange coloured. <i>Hudson</i> 622. |
| <i>Umbelliferus</i> | 39. | Small, brittle, glutinous, water coloured, base dawny. |

Such as have the gills disposed in two series.

- | | | |
|--------------------|-----|---|
| <i>Laricinus</i> - | 19. | Stems thick, white, united; pileus small, cushioned, annulus dawny, curtain tough. <i>Schæf. T.</i> 25, or <i>T.</i> 74. <i>Battarra Fung. T.</i> 11. B, C, E, F. <i>Hallar Hist.</i> 2445. |
| <i>Politus</i> - - | 30. | Pileus convex, glossy, green; curtain lacerating, gills rust coloured. <i>Curtis T.</i> 309. <i>Schæf. T.</i> 1. <i>Hall. Hist.</i> 2444. <i>Ray P.</i> 6. No. 30. <i>Steerbeck T.</i> 20. G. |
| <i>Rigidus</i> - - | 43. | Pileus dark brown, rim rolled in, wrent, gills gross, brittle, few; stem tall, middle swelling. <i>Schæf. T.</i> 87.
<i>Campanulatus</i> |

ARRANGEMENT OF AGARICS.

xxvii

Trivial Name.	Plate.	
<i>Campanu- latus</i> }	31.	Pileus belled, plaited, striped; margin tufted, stem tall, curtain vanishing. <i>Sp. Pl.</i> 1643. <i>Hudson</i> , 618. <i>Mich. Gen. T.</i> 75. <i>F.</i> 6.
<i>Androsaccus</i>	32.	Small size, stem tall, hard, black, shining, bristle-like. <i>Sp. Pl.</i> 1644. <i>Hudson</i> , 641. <i>Ray Syn.</i> 9. <i>Hall. Hist.</i> 2351.
<i>Candidus</i> - -	39.	Pileus convex, substance dry, tough, abiding, on rotten sticks, small size. <i>Hudson</i> , 620. <i>Ray Syn. T.</i> 1. <i>F.</i> 2. <i>Hall. Hist.</i> 3348. <i>Mich. Gen. T.</i> 74. <i>F.</i> 7.
<i>Eburneus</i> -	4.	Small size, pileus flat, whole plant white, tender, pellucid, perishing on the ground. <i>Vaill. Paris, T.</i> 11. <i>F.</i> 22.

Such as have the gills arranged in three series; having a volva on the root, and a curtain on the stem.

<i>Muscarius</i> -	27.	Large size, stem tall, root furrounded by a lacerating perishing volva, stem by an abiding curtain; colour of the pileus variable. <i>Sp. Pl.</i> 1640. Though the gills in this species are frequently in two series only, yet as I have several times seen them irregularly interspersed with those of a third, it will more properly arrange with those of three series.
<i>Nobilis</i> - -	46.	Pileus a bright full Scarlet, with a snow-white lacerating epidermis or volva, peculiar to itself, and distinct from that of the root. <i>Steerbeck</i> , 215, <i>T.</i> 22. <i>F. C.</i>
<i>Verrucosus</i> -	47.	Pileus mouse coloured, with wart-like tubercles growing thereon. <i>Hudson</i> , 613. <i>Schæf. T.</i> 91. <i>Mich. Gen. T.</i> 78. <i>F.</i> 2.
<i>Vernalis</i> - -	48.	Plant wholly white, pileus globular, glutinous, shining; root globular. <i>Bulliard, P.</i> 108. <i>Schæf.</i> 241. <i>Jed non viscosus. Hall. Hist.</i> 2353.

Such as have a radical abiding volva, but no curtain.

<i>Pulvinatus</i> -	49.	Pileus smooth, mouse grey; margin striated, second and third series of gills cut off at the base, by a right line obliquely.
---------------------	-----	--

Such as are destitute of a radical volva, and furnished with a curtain on the stem.

- | Trivial Name. | Plate. | |
|---------------------|-----------|--|
| <i>Annulatus</i> | - 23. | Pileus bell'd, imbricated with growing scales; curtain abiding, root bulbed. <i>Hall. Hist.</i> 2371. <i>Steerbeck</i> , 77. <i>T.</i> 7. <i>F. A.</i> <i>Ray Syn.</i> 4. <i>Ag. procerus</i> , <i>Hudson</i> , 612. |
| <i>Cristatus</i> | - - 7. | Pileus brittle, lacerating, tufts on the surface, small, upright, growing, curtain vanishing. |
| <i>Villosus</i> | - - 42. | Pileus covered with an hard fox-coloured shag, stem naked, ascending; annulus thick, dawning, abiding; curtain vanishing. |
| <i>Pompatus</i> | - 5. | Orange coloured, root solitary, stem solid, increasing upwards; flesh thick, brittle; curtain lacerating.—I find no satisfactory account of this species. |
| <i>Castaneus</i> | - 10. | Stem white, fistular; pileus chestnut coloured, curtain white, lacerating.—I find no apt synonyma. |
| <i>Irregularis</i> | - 13. | Root solitary, pileus distorted, brown grey, centre beaked; gills broad, stem fistular, curtain grey, vanishing. <i>Bulliard</i> , <i>T.</i> 268. |
| <i>Elasticus</i> | - - 16. | Grows in bundles, stem tapering upwards, curtain abiding, plant dry, elastic, snuff-coloured. <i>Ray Syn.</i> 5. No. 23. <i>Hall. Hist.</i> No. 2432. <i>Scopoli</i> , 1468. |
| <i>Durus</i> | - - - 67. | Pileus cushioned or convex, buff-grey; gills very numerous, broad, thin, and grey; stem solid, short, brittle. |
| <i>Fascicularis</i> | 29. | Grows in bundles, stem fistular, cylindrical; hat yellow, fleshless; curtain soon vanishing. <i>Flo. Dan.</i> <i>T.</i> 890 <i>Schæf.</i> <i>T.</i> 49. <i>F.</i> 1, 3. <i>Bulliard</i> , 178. <i>Hudson</i> , 615. <i>Ray</i> , <i>P.</i> 9. No. 50. <i>Steerbeck</i> , <i>T.</i> 25. <i>F.</i> |
| <i>Campestris</i> | - 45. | Pileus fleshy, convex, white, changing brown; gills first rose-coloured, changing brown-speckled; stem solid, curtain thick, white, dawning, vanishing. <i>Sp. Pl.</i> 1641. <i>Hudson</i> , 610. <i>Schæf.</i> <i>T.</i> 33. <i>Hall. Hist.</i> 2443. |
| <i>Violaceus</i> | - - 52. | Pileus with much flesh, violet-coloured, curtain rust-coloured, vanishing, a rust-coloured dawn near the root. <i>Sp. Pl.</i> 1641. <i>Hudson</i> , 611. <i>Hall. Hist.</i> 2455. |

Ciliaris

- | Trivial Name. | Plate. | |
|---------------------|--------|---|
| <i>Ciliaris</i> - - | 53. | Pileus pale, semioval, rim extended, ciliated; gills grey, base pointed, third series sometimes wanting, stem white, fistular; base bulbed, curtain for a little while pendulous, soon vanishing. Is it the <i>A. Separatus</i> , of <i>Linnæus</i> ? |
| <i>Clypeatus</i> - | 57. | Pileus convex, beaked, dark mouse colour; first gills broad at the base, and growing to the stem; stem tall, slender, mouse coloured; curtain soon vanishing. |

Such as have no volva on the root, or curtain on the stem.

- | | | |
|---------------------|-----|---|
| <i>Aquosus</i> - - | 71. | Small size, whole plant at first surrounded with a white dawning covering, afterwards gelatinous, pellucid, watery; gills not touching the stem. <i>Hudson</i> , 691. <i>Vaill. Paris</i> , T. 12. Fig. 56. |
| <i>Plumosus</i> - - | 33. | Pileus and stem wholly covered with little plummy, growing, mouse-coloured tufts. I find no account of this plant. |
| <i>Croceus</i> - - | 51. | Pileus, and lower part of the stem, covered with a close, yellow, dawning pile; upper part of the stem smooth, gills white. |
| <i>Latus</i> - - - | 2. | Pileus large, broad, fleshy, dark mouse colour; gills very broad, not touching the stem; stem solid. |
| <i>Lactifluus</i> - | 3. | Gills narrow, base broad, growing to the stem; substance hard, whole plant a cinnamon-grey, yields a white mild milk. <i>Hudson</i> , 614. No. 14. |
| <i>Denticulatus</i> | 4. | Pileus purple, pellucid; stem grey, gills thin, pliable, brown dents on the edges. I find no account of this plant. |
| <i>Repandus</i> - | 6. | Pileus flat, broad, pale; gills lanced, base lopped, stem fistular, twisted, white, splitting. |
| <i>Cornucopi-</i> | 8. | Stem hard, twisted, in bundles, most decurrent; pileus lobed, tough, red brown. |
| <i>oides</i> } | | |
| <i>Deliciosus</i> - | 9. | Scarlet or orange-coloured, pileus flat, rim inflected, yields a yellow milk, of a mild taste. <i>Hudson</i> , 613. No. 13. |
| <i>Membrana-</i> | 11. | Pileus convex, gills broad, stem fistular, whole plant white, dry, light, flexible, papery. |
| <i>ceus</i> } | | |

- | Trivial Name. | Plate. | |
|---------------------|--------|--|
| <i>Cæruleus</i> - - | 12. | Pileus cushioned, greenish blue, clothly; gills white, brittle; stem white, solid. <i>Viridis</i> , <i>Hudson</i> 614. <i>Hallar Hist.</i> 2444. <i>Sterbeeck</i> , T. 5. Fig. C. |
| <i>Serratis</i> - - | 14. | Pileus strong, full purple, fleshy, clothly, brittle; gills gold-coloured, ferrated; stem gold-coloured, solid, brittle large. I find no account of this species. |
| <i>Concineus</i> - | 15. | Pileus mouse-coloured, glutinous; gills numerous, broad, very white; stem fistular, white. <i>Schæf.</i> T. 14. <i>Hallar Hist.</i> 2381. |
| <i>Umbilicatus</i> | 17. | Whole plant tough, elastic, white; pileus umbilicated, gills few, narrow; stem small, solid. <i>Schæf.</i> T. 39. |
| <i>Cinnamoneus</i> | 22. | Pileus undulated, centre beaked, gills broad, stem increasing upwards, solid; whole of a cinnamon colour. <i>Hallar Hist.</i> 2416. |
| <i>Elephantinus</i> | 28. | Pileus convex, glutinous, pale; gills gross, wax-like, brittle; stem big, soft, spongy, snow white; whole plant in decay changes colour, becomes hard, dry, charcoal-like. I find no description or figure agreeing with this plant. |
| <i>Fissus</i> - - - | 35. | Pileus olive-coloured, dry; apex brown, rim striated, stem tall, striped, fistular, cleaving. I find no account of this species. |
| <i>Rubeus</i> - - | 36. | Whole plant dark red crimson, stem tall, hard; base thick, gills numerous, transparent, beautiful. No true description or figure of this species. |
| <i>Tenuis</i> - - | 37. | Dead white, pellucid, dissolving; stem brittle, dawning at base, very tall, very slender. <i>Bulliard</i> , T. |
| <i>Mollis</i> - - | 40. | Pileus convex, fleshy, pale; gills narrow, decurrent; stem soft, white, solid, bulbed; flesh soft, dry, spongy. |
| <i>Tortilis</i> - - | 41. | Very small, in clusters, brittle, hat red-brown, distorted; gills few, broad, flesh-coloured. <i>A. frigilis</i> <i>Hudson</i> , 620. <i>Schæf.</i> T. 230. |
| <i>Purpureus</i> - | 41. | Pileus and upper part of the stem violet-coloured, lower part and gills white; small size. No account of this. |
| <i>Cespitosus</i> - | 41. | Small, pellucid, horn-coloured, pileus distorted, rim dented, gills few, crumpled; in clusters. <i>Vaill. Paris</i> , T. 11. F. 11. |

Atro-

- | Trivial Name. | Plate. | |
|---------------------|--------|--|
| <i>Atro-rufus</i> | 51. | Small size, dark brown, dry, tough, stem very slender, very tall. <i>Schæf.</i> 234. <i>Ray Syn.</i> P. 8. No. 41. <i>Gled. Fung.</i> P. 127. No. 25. <i>Var H.</i> |
| <i>Adscendens</i> | 55. | Stem ascending, plant dusky brown, hard, dry; gills decurrent, pileus convex, margin contracted, a velvety stripe round its lateral extremity. Is it a variety of <i>A. lactifluus</i> ? |
| <i>Fulvus</i> - - | 56. | Pileus fulvous-coloured, hard, fresh, brittle; stem solid, hard, brittle; base pointed. No account of this. |
| <i>Peronatus</i> - | 58. | Pileus thin, rim waved, lower part of the stem covered with a tall, yellow down. I find no account of this plant. |
| <i>Sordidus</i> - - | 59. | Pileus funneled, sordid brown; stem solid, gills distinct, whole substance tough, abiding. <i>Dickson Crypt.</i> P. 16. T. 3. F. 1. <i>Ray Syn.</i> P. 6. No. 27. |
| <i>Acris</i> - - - | 60. | Pileus grey-buff, shape variable; stem increasing upwards, grey; gills distinct, yields a white milk, of an hot acrid taste. |
| <i>Fimbratus</i> - | 61. | Pileus funnel-shaped, margin lobed, undulated, curled, crenated, elegant; gills narrow, distinct; stem short, whole plant pale, pellucid, thin, watery. <i>Sterbeeck,</i> T. 15. B. |
| <i>Mammofus</i> - | 65. | Pileus grey, brittle, highly beaked; gills waved and crenated; stem tall, grey, solid. <i>Sp. Pl.</i> 1642. <i>Hudson,</i> 619. |
| <i>Ametbystnus</i> | 63. | Plant an amethyst purple, pileus, distorted, fleshless; stem tall, crooked; gills few, brittle, waved, distorted; these and stem, bloom powdered. <i>Hudson,</i> 612. |
| <i>Farinaceus</i> - | 64. | Pileus convex, distorted, pellucid; gills few, gross, waved; stem crooked, tall; whole substance pellucid, watery, of a pale brown carnation colour, powdered with a pale bloom. <i>Hudson,</i> 616. <i>Scoppy,</i> 1530. <i>Hall. Hist.</i> 2436. |
| <i>Equestris</i> - | 65. | Pileus convex, starred; rim acute, gills sulphur-coloured, stem thin, fistular, smooth, pale, yellow. <i>Hudson,</i> 616. <i>Sp. Pl.</i> 1643. |
| <i>Varius</i> - - | 66. | Pileus semioval, brown, grey, or black, varying; gills deep grey, stem fistular, filiform, tall, white. |

Cuspidatus

- | Trivial Name. | Plate. | |
|-------------------|---------|---|
| <i>Cuspidatus</i> | - 66. | Pileus acutely cone-shaped, red brown, smooth; stem smooth, tall, red-brown; gills pale, buff. |
| <i>Aurentius</i> | - 67. | Pileus cherry-coloured, glutinous; gills few, broad; base pointed, yellow; stem distorted, yellow; whole plant extremely fragile. <i>Lighthoot, Scot. 1035.</i> |
| <i>Laceratus</i> | - 68. | Whole plant pale yellow, very brittle; pileus lacerating, gills very few, very broad outwardly; base pointed, stem fistular, twisted, splitting. |
| <i>Nuceus</i> | - - 70. | Pileus globular, nut-brown, silky, top naveled; rim lobed, much rolled in; stem tall, white, fistular, tapering upwards. |

Such as are not supported on a central stem.

- | | | |
|--------------------|---------|--|
| <i>Lateralis</i> | - 71. | Pileus convex, smooth, dusky yellow; gills in two series, on rotten wood. <i>Hudson, 624. Ray Syn. 25. Hall. Hist. 2337.</i> |
| <i>Betulinus</i> | - 72. | Pileus dawning, margin rolled in, gills branched, substance elastic, grows in clusters or single, perennial. <i>Sp. Pl. 1645. Hudson 623. Ray Syn. 24. Hall. Hist. 2331.</i> |
| <i>Planus</i> | - - 72. | Flat, mouse-coloured, growing on the ground, surface smooth, gills in three series, distinct. <i>Hall. Hist. 2334.</i> |
| <i>Flabellatus</i> | - . | Small, white, fan-shaped; gills few, simple, on putrid plants. <i>Hall. Hist. 2335.</i> |
| <i>Quercinus</i> | - 73. | Hard, woody, large, brown, perennial, at first gill'd, at last pored, on the under side. <i>Bulliard, 352. Battarra, T. 38. G.</i> |

A N
HISTORY OF FUNGUSSES,
GROWING about HALIFAX.

G E N U S II.
B O L E T U S.

M

- LXXXVII. BOLETUS *acaulis lignosus, poris obliquis rostratis inæqualibus basi adhæsius.*—*Agaricus acaulis coriaceus, lamellis simplicibus sinuatis.* Hudson, 623. *Agaricus coriaceus longissimus pectinatim inferne divisus.* Ray Syn. P. 25, No. 26. T. 1. F. 5.

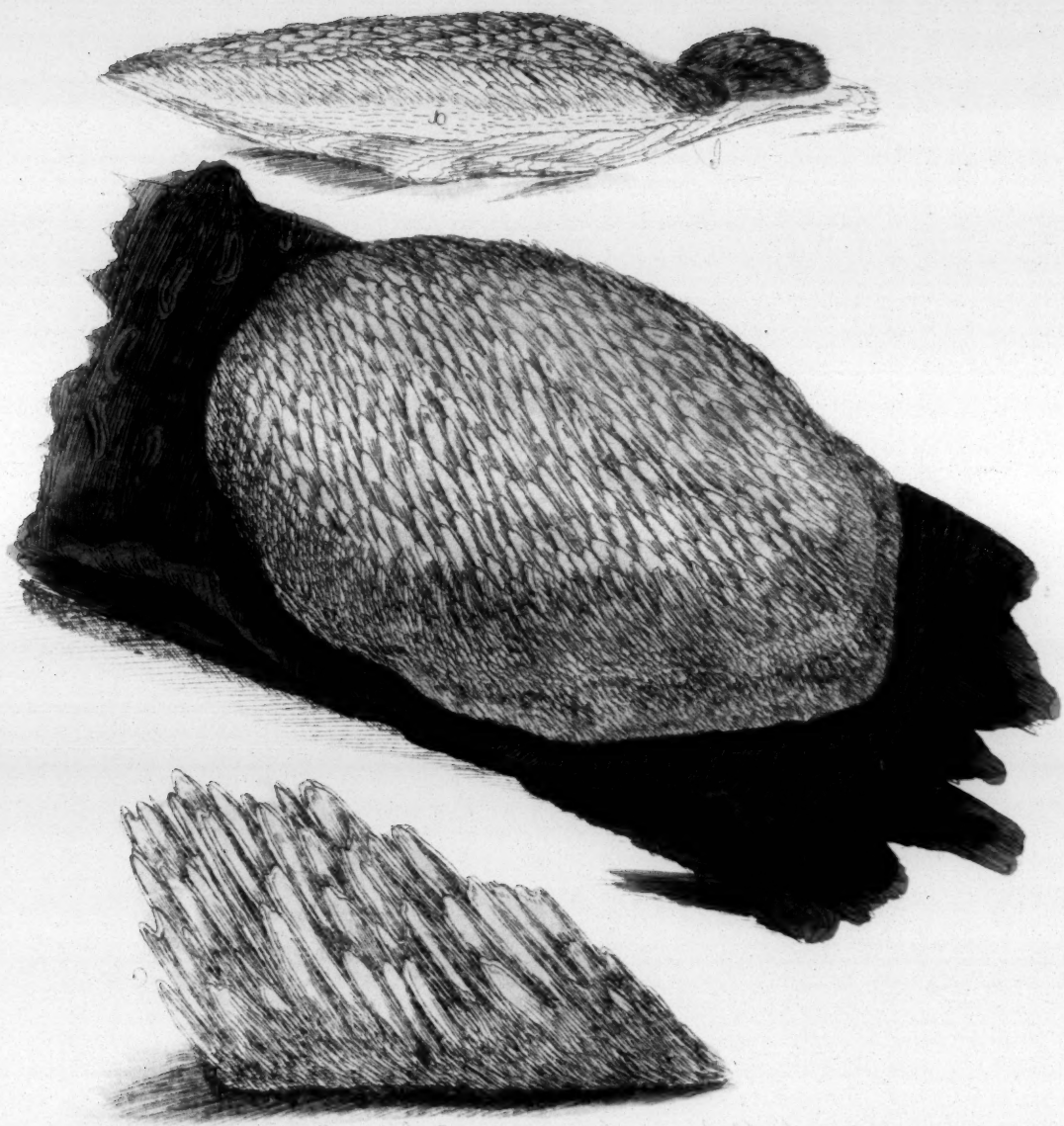
OBLIQUE BOLETUS.

T A B. LXXIV.

THIS consists of a vast number of oblique unequal pores, which run together at their base, and form an hard, woody, or coriaceous crust, which strongly adheres, by its whole breadth, to the branches of trees, when fallen, or in a state of decay; it insinuates itself into the substance of the dead bark, so as to become inseparably united therewith, *as is seen in the upper figure at a.* sometimes when old it passes quite through the bark, incorporating it into its own substance, and even enters into the wood.

It grows in patches various in size and figure, sometimes round or oval, but more frequently of no determinate shape. The tubes round the margin are smaller, and of a darker colour; they are obliquely placed, and most commonly rent, broken, or deficient on one side; they generally increase in length, from the margin to the centre of the plant. The colour varies from white, by way of buff, to browns of various hues, and becomes almost black in decay. A small part of the plant, as it appeared when a little magnified, is seen at *c.*

Grows in many woods about *Halifax*, and is perennial and abiding.





BOLETUS *acaulis suberosus imbricatus flavus lævis, poris minutis teritibus.* Lightfoot Scot. P. 1031.—*Boletus acaulis coriaceus convexus lobatus flavus lævis, poris tenuissimis.* Hudson Angl. 625. Schoeffer Fung. 131. LXXXVIII. *tenax.*

TOUGH BOLETUS.

T A B. LXXV.

THIS grows horizontally, on the sides of trees, most commonly on living wood, in some cavity occasioned by the lopping of a branch, or some other accident; it first appears like a large unequal tumour, of mixed colours; as it advances in growth, it begins to unfold and display a number of thick tough lobes, which are imbricated, or rather folded one within another; for they are nearly of equal length, and adhere at the base, so as to be united into one substance.

The upper surface is convex, soft and smooth to the touch, and of a brownish gold colour; sometimes pale, sometimes of a redder hue: on the underside the lobes are convex near the base, but flat near the extremity. The substance is tough and coriaceous, while in a growing state; left on the tree, it dissolves in decay; dried, it becomes light, hard, and brittle.

The tubes are cylindrical, very numerous, and of a yellow colour.

It is a rare plant in this neighbourhood; the specimen here figured and described, grew in a little wood at *Shibden-Hall*, near *Halifax*, in August, 1786.

LXXXIX. BOLETUS *acaulis lobatis coriaceis, lobis linguiformibus.*
elegans.

ELEGANT BOLETUS.

T A B. LXXVI.

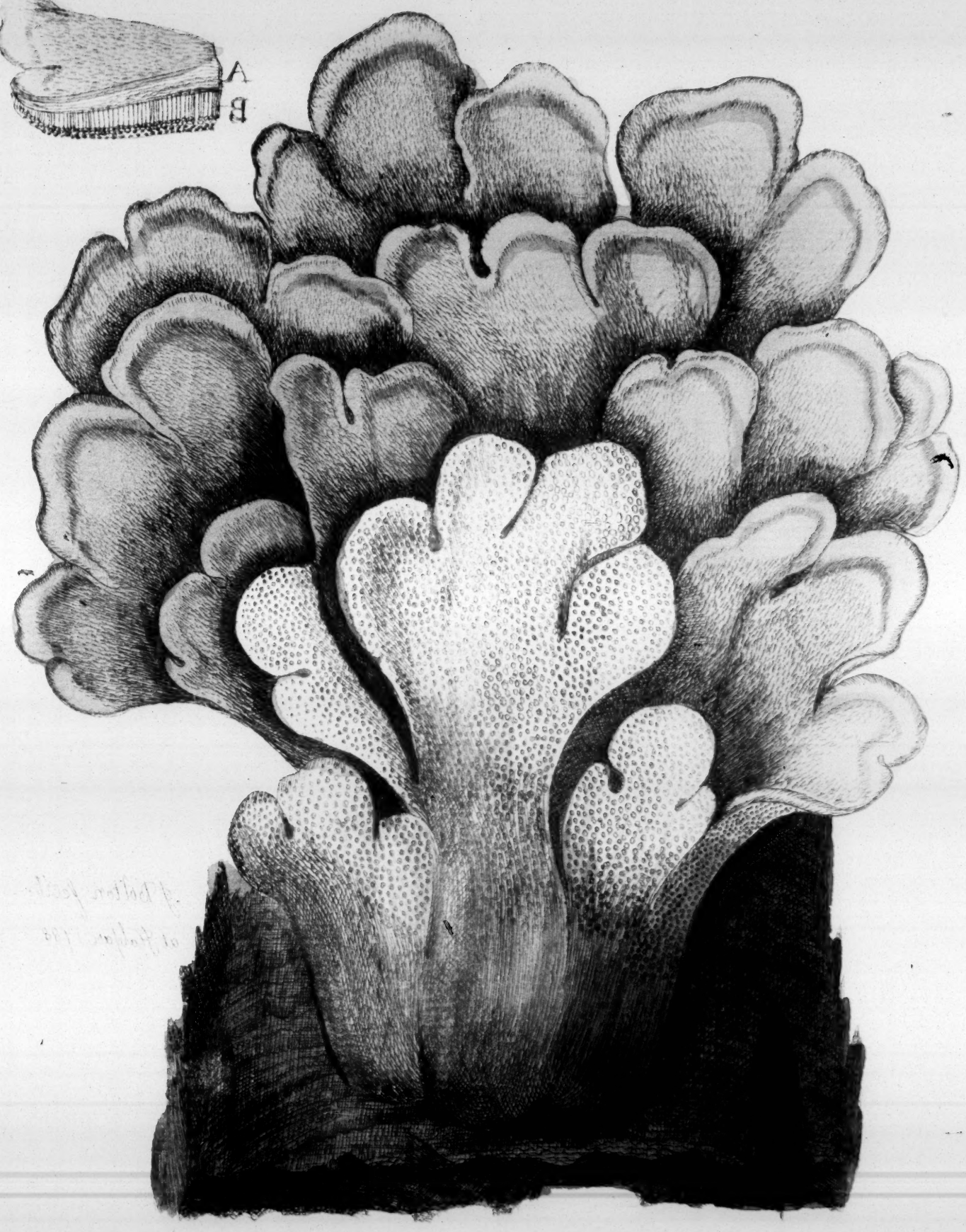
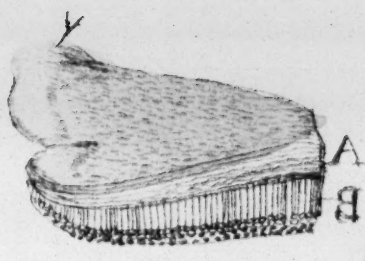
THIS elegant plant grew in an upright direction; it consisted of ten or twelve principal lobes, which united near the root, and formed a kind of thick irregular stem, of a blackish colour, and an hard tough substance; these first or principal lobes increase in breadth, from the base to the extremity, where each is subdivided into three or four other lobes, of a roundish tongue-shape, blunt at the end, and a little waved on the edges.

Of the primary divisions or lobes, those in the centre are the shortest, those on the outside longest; so that the whole plant together forms a rude kind of funnel-shape. The upper surface appears to the eye to be a little scaly, but is smooth and velvety to the touch, and varies from a dusky brown to a kind of cinnamon colour.

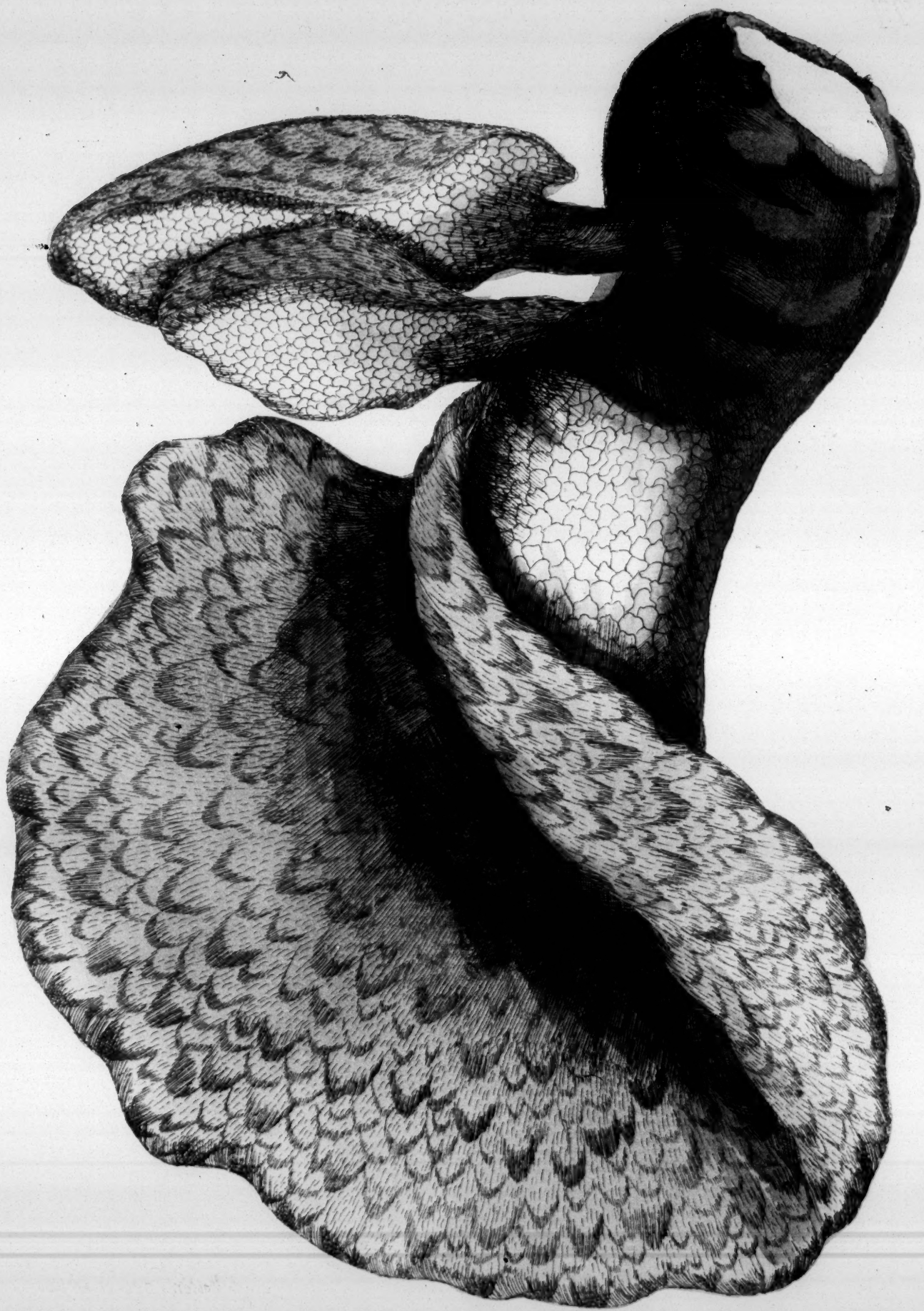
The tubes, *at B.* are small and very numerous, the pores round and white; while young they appear as if covered with a fine white velvety dust, but on being touched immediately lose the white, and change to a dirty brown. The internal substance, *at A.* is thin, white, and extremely tough; it easily divides in fine filaments, from the top of the lobes quite down to the root; which filaments immediately after their division, on being irritated, seemed to exhibit motions just like those of a muscular fibre.

This plant grew amongst the fragments of a decayed elm root, in *Cross-Field*, at *Halifax*, in August, 1786, and again in the same place in July, 1788. I find no description or figure properly expressive of this species. *The figure in Battarra, T. 34. Fig. B. which Hudson cites for the Boletus coriaceus, somewhat resembles my plant. Hudson's B. coriaceus is the same with my B. tenax, but I think that my tenax and elegans are distinct species.*

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BOLETUS *subacaulis planiusculus lacerato-squamosus flavescens*, XC.
poris tetragonis. Hudson *Angl.* 626.—*Boletus juglandis*. *squamosus*.
Schæf. Fung. T. 101, 102. *Auricula flammea malchi*. *Ster.*
Fung. P. 105. *T.* 13, 14. *Fig. omn.*

SCALY BOLETUS.

T A B. LXXVII.

THIS grows from the sides of trees, in a drooping direction, sometimes in vast imbricated clusters of various sizes, from six to twelve inches in diameter, and adhering to the tree by one side, without any visible footstalk; sometimes there is a visible root, as in the plant before me.

• In this specimen there is a root, consisting of a roundish lump, the size of a cat's head; it is of a firm, compact, tough substance; white within, and a dusky brown on the outside: on being cut it yields in drops from the wound, a transparent fluid, acrid to the taste; from the root the stem contracts for about an hand's breadth, and then gradually spreads out into the substance of the plant.

The surface is of a pale yellowish brown colour, with numerous feather-like scales, which adhere to the surface, and are arranged in a kind of wild concentric circles. The root sustained one principal plant, and two others much smaller, issuing out of the neck or footstalk of the large one, as expressed in the figure. The large one measured from side to side, in the broadest part, twenty-two inches; from the base of the root to the extreme margin twenty-four inches; the internal substance is white, spongy, and greedily devoured by the *larvæ* of insects.

The pores are very large and angular, consisting of an unequal number of sides, the tubes short and shallow.

This specimen grew on an ash tree, in *Skircoat*, near *Halifax*, July 24, 1787.

- XCI. *BOLETUS acaulis pulvinatus lævis, poris oblongis.* Hudson
albus. 626.—*Boletus acaulis pulvinatus lævis, poris oblongis et ro-*
tundis. Lightfoot Scot. 1036.—*An poliporus sessilis convexo-*
planus farinosus. Hall. Hist. 2287?

WHITE BOLETUS.

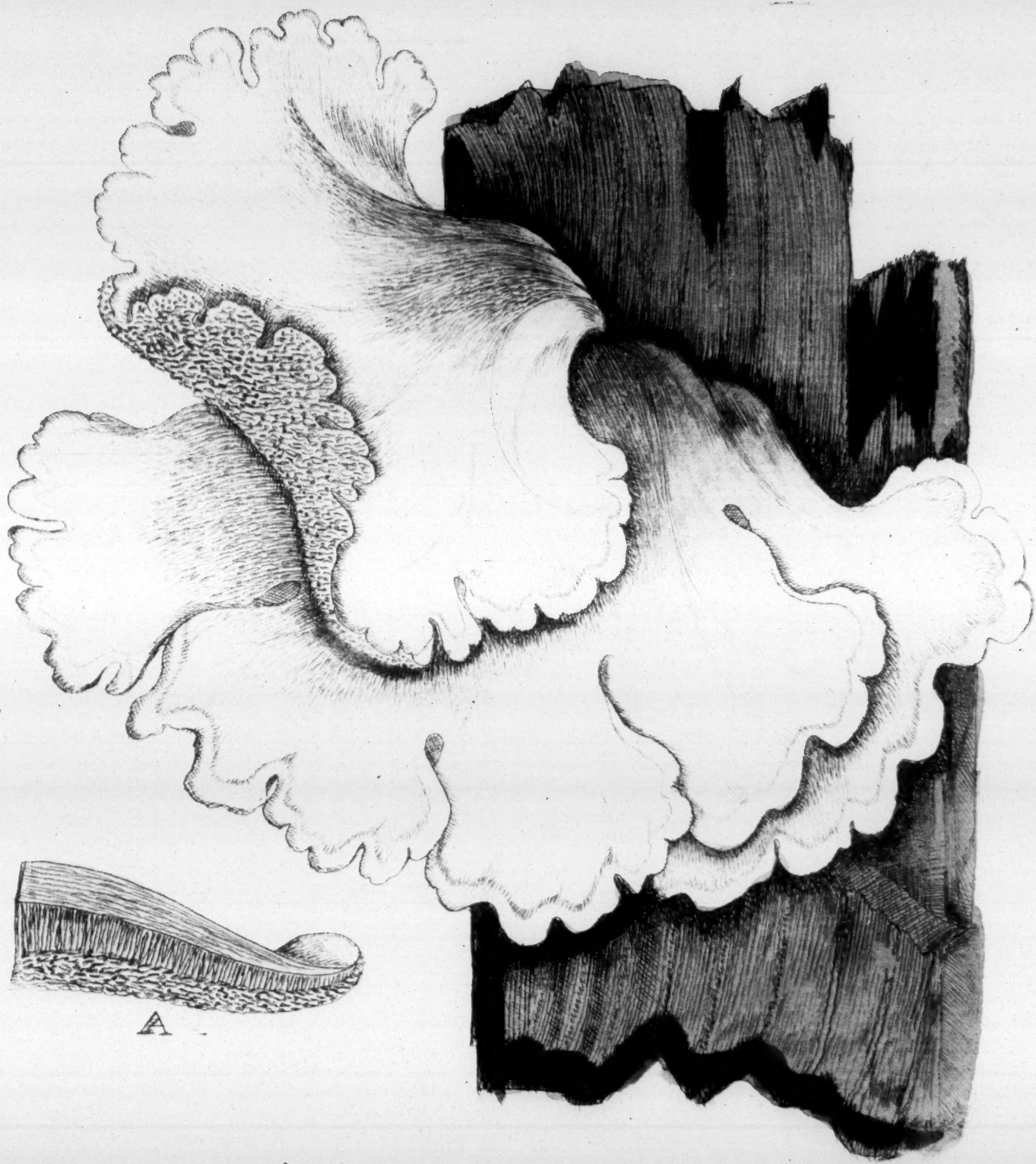
T A B. LXXVIII.

THIS plant adhered by its base to the root of a poplar tree, which was in a decaying state.

It is convex on the upper side, and about an inch in thickness near the base, growing thinner to the margin;—the convex part near the root is of a reddish colour, the rest of a pure white, and appears to the eye as if it were rubbed with chalk. A portion of the surface, when magnified, appeared to be covered with a short velvety dawn, which glittered like silver;—when the white dawn or powder was rubbed off, the surface was of a pale dusky flesh colour. The margin is lobed, curled, and undulated, in a very pleasing manner. The substance of the plant, within, is of a pale dusky flesh colour, tough, and elastic.—One of the specimens before me, measures six inches from side to side, and near four from the base to the fore margin; another is little more than half that measure.

The tubes are about two lines in length, they adhere together by their sides, are of a tough coriaceous substance, and variable in size and figure. The pores very unequal; some round, others oblong or angular, some are long and waved, some large, others small; but all of equal height.

This specimen grew on the root of a fallen poplar, at *Copley-Hall*, near *Halifax*; it grew near the surface of the ground, and surrounded, with its substance, the grasses and weeds that grew in its way.





Epilobium
sp. nov.

Epilobium repens L. var. *repens* L.

BOLETUS *acaulis lævis, carnosus sanguineus mollis obscure* XCII.
lobatus. Lightfoot Scot. 1034. Hudson Angl. P. 625. hepaticus.
 No. 5.—*Poliporus sessilis sanguineus crassus mollis obscure*
lobatus. Hall. Hist. 2315.—Agaricus porosus rubeus car-
nosus hepatis facie. Ray Syn. P. 23. No. 21. Mich. Gen.
T. 60. Ord. 1. Battara, T. 34. Fig. A.

LIVER BOLETUS.

T A B. LXXIX.

IT grows horizontally, in the cavities of living oak trees, adhering by a narrow base, and spreading out on each side, assumes an almost circular figure. The margin gently waved. The surface is liver-coloured, very smooth, and cold to the touch: in some specimens there is a tinge of green mixed in the hue, especially in the larger plants. It is convex near the base, on the upper side, but flat towards the margin:—the under side is more flat towards the base, convex and projecting at the margin. The substance or flesh, within, is of a firm close texture, of a liver colour, with veins and spots of white.

The tubes are cylindrical, very numerous, about three lines in length, of a pale yellow colour; as are also the numerous pores.

This is said to be of the esculent kind; I have found it to taste almost like lamb's flesh, but how far it is to be trusted I know not.

The specimen now described, grew in an hollow cavity in the stock of a living oak tree, in the *Sbroggs*, in *Ovenden*, near *Halifax*, October 27, 1785.

- XCIII. BOLETUS *acaulis pulvinatus lævis, poris tenuissimis.* Sp. Pl. 1645. Hudson *Angl.* 625. *Poliporus convexo-planus durissimus cinnereus, infern albidus.* Hall. *Hist.* 2288. *Agaricus pedis equini facie,* Tourn *Inst. P.* 562. T. 330. Fig. A, B. Battarra, T. 37. E. *Agaricum igniarium, agarici officinalis facie.* Mich. *Gen. P.* 118. T. 61. Fig. 1. *Boletus unguatus fulvus et variegatus.* Schæf. *Fung.* 137, 138. *Fungus durus igniarius.* Park, 1323.

TOUCHWOOD BOLETUS, Spunk.

T A B. LXXX.

THIS grows horizontally, from the sides of trees; its first appearance is in form of a convex tubercle, the size of a pea; it is then of a soft and yielding substance, and of a yellow colour: this globular or convex figure it retains, till it acquires the size of a small wilding apple or crab; it is now more firm, of a darker colour without, but still yellow within; and the tubes are not yet formed: as it advances in growth the base spreads laterally, a margin begins to project, and the tubes begin to grow on the underside; they are so very fine and close, that the pores cannot be discerned by the naked eye; while fresh they are of a yellowish colour. The upper surface is of various colours, sometimes disposed in concentric circles, grey, brown, dusky, &c. The circles a little elevated, and the margin very blunt.

When the plant is full grown, the tubes are near half an inch in length, of a reddish brown colour, and an hard, dry, woody substance, as is the whole plant; it is perennial, growing and increasing from year to year.

This specimen grew on the stock of a cherry tree, in Southowram, near Halifax.



Drawn and etched on the copper from a fossil from the
 of the same as before. 2d. 1887. 1888.



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BOLETUS *acaulis fasciis discoloribus poris albis*, Sp. Pl. 1645. XCV.
Hudson Angl. 626. Schæf. Fung. T. 136. Poliporus fef-
ilis cespitosus planus hirsutus anulis versicoloribus. Hall. *versicolor.*
Hist. 2282. Fungus mesentericus. Sterb. T. 27. K. Fun-
gus lignosus roseus variegatus. Boccone, P. 295. T. 8.
No. 5. Agaricus squamis iridiformibus. Battarra, T. 35. A.

STRIPED BOLETUS.

T A B. LXXXI.

THIS plant, like the last, when young, adheres by its whole breadth to decayed wood or bark, having the hairy side downwards and the pores upwards. I have specimens which grew in a moist situation, upon wet wood, which grew to their full size in this manner; they are two or three inches diameter, about half an inch thick, and of a milk white colour in every part; they have not the least appearance of hairiness or dawkiness on either side. In another specimen, the plant has formed itself into a firm solid lump, suited in shape to the cavity of an old beam, wherein I found it growing, and is nearly the size of a man's fist.

The most common manner of its growing, is like the *Boletus auriformis* and *Agaricus quercinus*; to separate from the wood except on one side, to become horizontal, and to grow and increase in that direction:—what is now become the upper side is covered with a close, short, velvety down, of various colours; amongst which, a purplish kind of lead colour generally prevails, or forms the ground-work; upon this are concentric stripes, of various browns, gold colour, green, or purple; the whole in decay changes to a dirty green, or greenish brown.

The pores are cream-coloured or white, sometimes round and very small, at other times angular and more large. The tubes very short.

Grows in woods about *Halifax*, plentifully.

XCVI.
auriformis.

BOLETUS *acaulis imbricatus tenuis coriaceis, superne villosus, inferne planus. Halvella acaulis. Hudson, 633. Halvella villosa. Relban, 463. Auricula reflexa. Bulliard, Pl. 274. Agaricus villosus tenuis, inferno lævis. Ray Syn. P. 21. No. 4.*

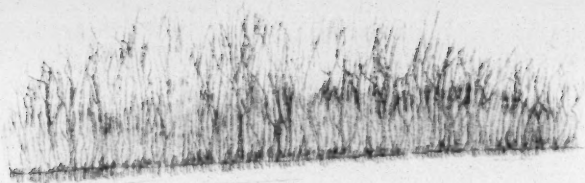
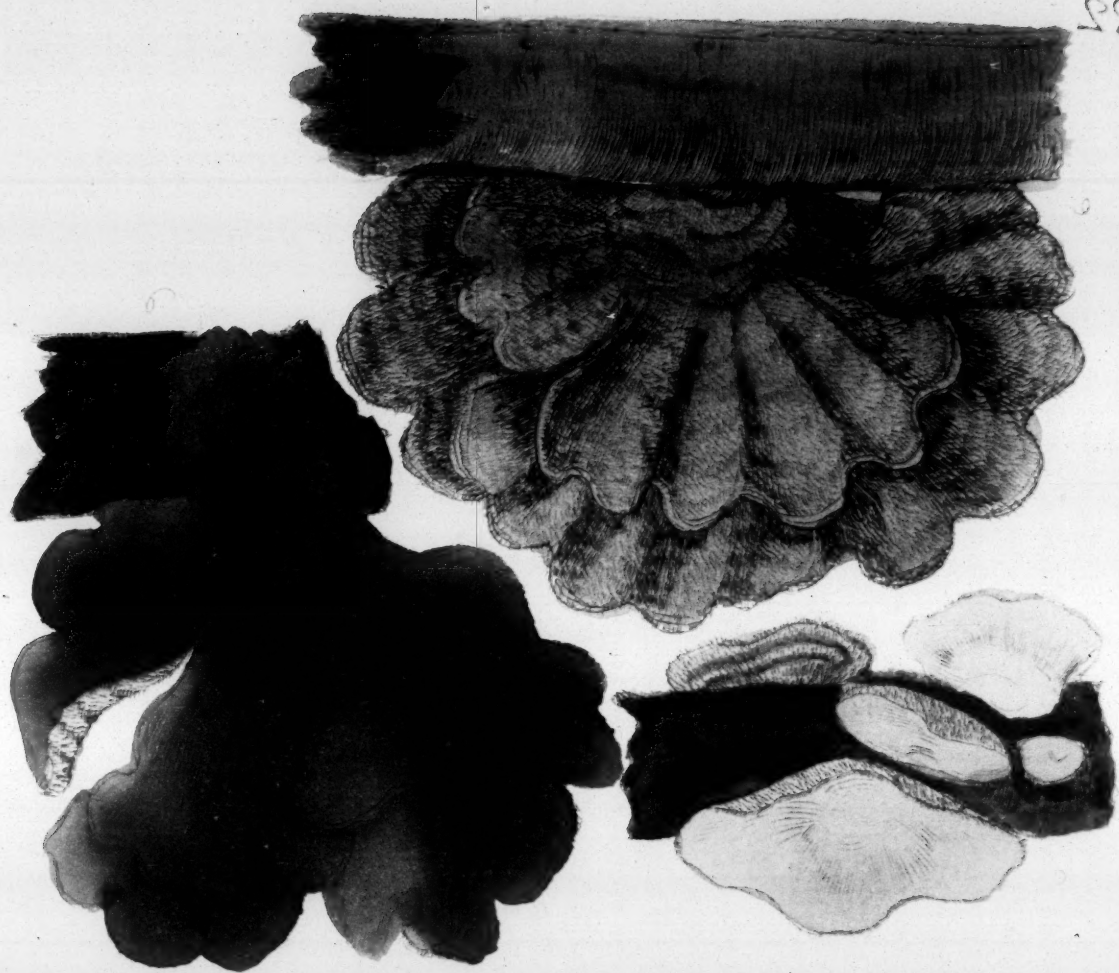
EARLIKE BOLETUS.

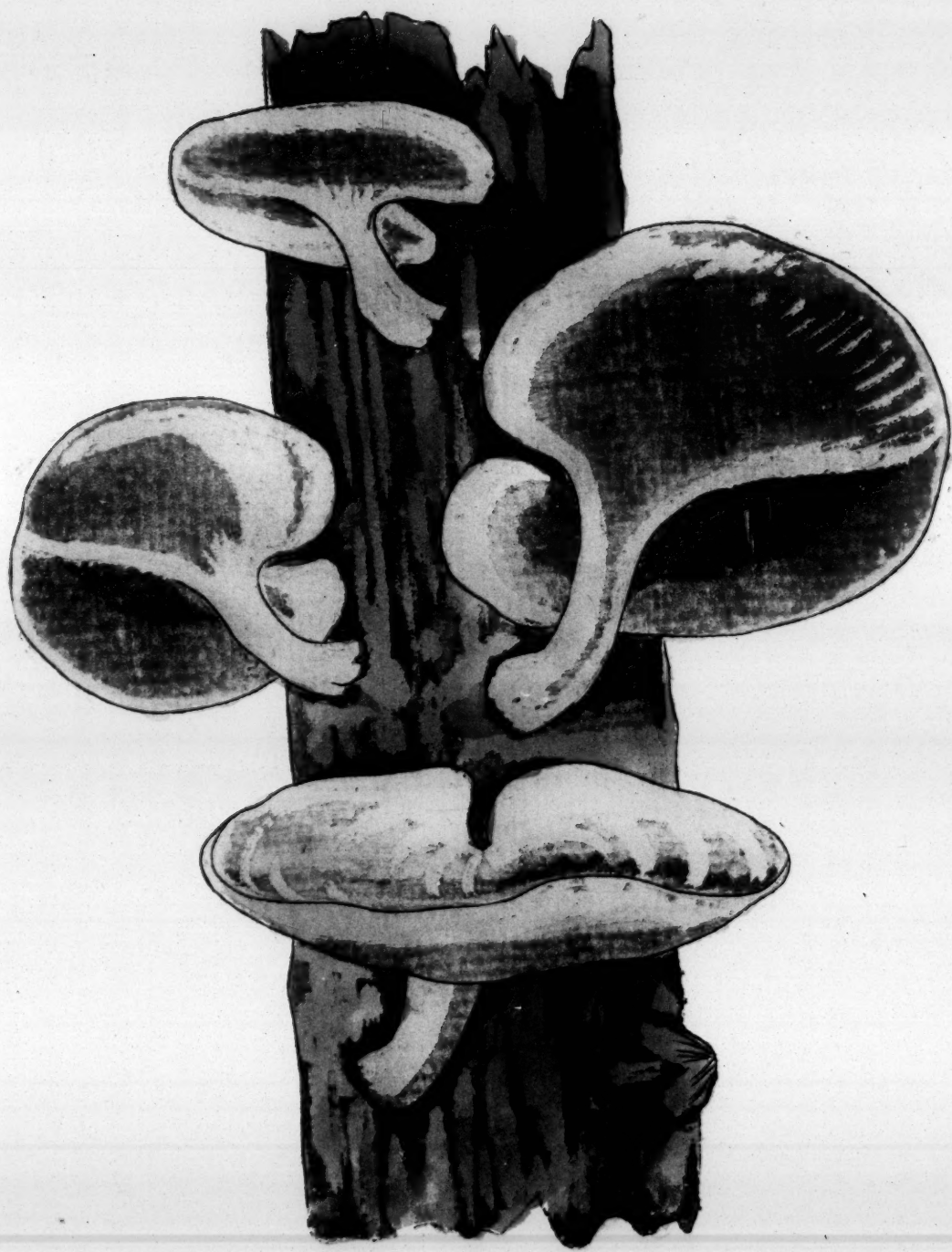
T A B. LXXXII.

THIS plant at first grows flat, adhering by its whole breadth to the bark of the dead branches or stocks of trees; it is most frequently of a circular figure, the upper side quite smooth, and of a brownish yellow, afterwards the under side, which is very hairy, begins to rise, and separate itself from the bark; sometimes the whole margin rises, and the plant rests on a central base, *as at c.*—but more frequently it is raised on one side only, the adhering part serving as a base or root to the part which is separated, and which turns to an horizontal direction, grows, increases, sends out other specimens from its extremities, in a double or imbricated order, and continues from year to year, *as at e.*—the upper side (which, by the bye, was the under in the infancy of the plant) still continues covered with a short stiff coat or shag, which while the plant is young is generally of a yellowish buff, and is marked with concentric lines of other colours; but when old changes to an hoary grey, the circles a little darker: the under side changes to a dark chestnut brown. A small particle, *as at a.* is magnified at *b.* the shag consists of filaments, divided, subdivided, and very much entangled: I sought for seeds, but could discover none.

I have placed this plant amongst the *Boleti*, because it coincides in substance, manner of growth, and in the whole habit, with the first division of that genus.

A certain characteristic of an *Halvella* is this, that when of proper age, on being gently irritated, it will eject a fine powder, in form of smoke; a property which is wanting in this plant.—It possibly may, though very rarely, produce seeds like its congeners:—we see plants of the same class which grow in great plenty, and yet their fructifications are very rarely discovered, as the *Lichen physodes, furfuraceus, &c.*





BOLETUS *petiolatus lateralis*, pileo coriaceo pallide-luteo, margine acuto, poris tenuissimis. Agaricus squamosus glaber. *lateralis*.
Battarra, P. 68. T. 34. A. XCVII.

L A T E R A L B O L E T U S .

T A B. LXXXIII.

THE root in this Boletus is black, hard, and of a woody substance. The stem gradually increases upwards, till it laterally spreads out into a pileus, of a circular figure, only deficient on the side where the stem loses itself in its substance; and in well grown specimens, the two opposite margins on the defective side increase, so as to touch each other.

The pileus from one to two inches diameter, flat, and quite smooth on the surface; the margin gently waved in some specimens, in others plain, in both very thin and acute; the colour on the upper side is exactly like the leaves of trembling poplar, when they turn yellow, and fall; the substance much resembles tanned neat's leather.

The pores are round, and very minute, so as not to be discerned by the naked eye in the largest specimens. The tubes are about a line in length; when magnified a little, I found them to be cylindrical, and their disposition very regular and beautiful. The colour of the pores is a little paler than that of the pileus.

Specimens of this, I gathered on the stump of a fallen willow tree, below *Woodhouse*, near the river *Calder*, in August, 1787. I have seen old specimens elsewhere, of a dark dusky brown colour, and of a substance as hard and firm almost as oaken wood.

Such as are supported on a central stem.

- XCVIII. BOLETUS *stipitatus*, pileo pulvinato subviscido, poris rotundalis
luteus. convexis flavissimis, stipite albido. Sp. Pl. 1647. Hudson
 Angl. 627. Schæf. Fung. T. 103. Ceriomyces pileo for-
 nicato. Battarra, T. 29. Fig. C. Boletus luteus. Dillen.
 C. Giss. T. 10. No. 1. Fungus porosus autumnalis viscidus.
 Buxbaum, Cent. 5. T. 14. Fungus ranarum. Sterb.
 T. 17. I. M. Hedwig Crypt. T. 36. Fig. 210.

YELLOW BOLETUS.

T A B. LXXXIV.

THE root consists of a tuft of dawny fibres, issuing from the base of the stem, by means whereof the plant adheres firmly to the ground.

The stem is solid, spongy, generally largest near the root, and three or four inches high; the colour is variable, in some specimens of a pale, in others of a deep yellow; sometimes olive-coloured, or dusky; in full grown plants frequently strongly tinged with a fine bright crimson or blood colour, on the upper part, which is lost on the lower, where it becomes dusky or brown, olive, straw colour, or green.

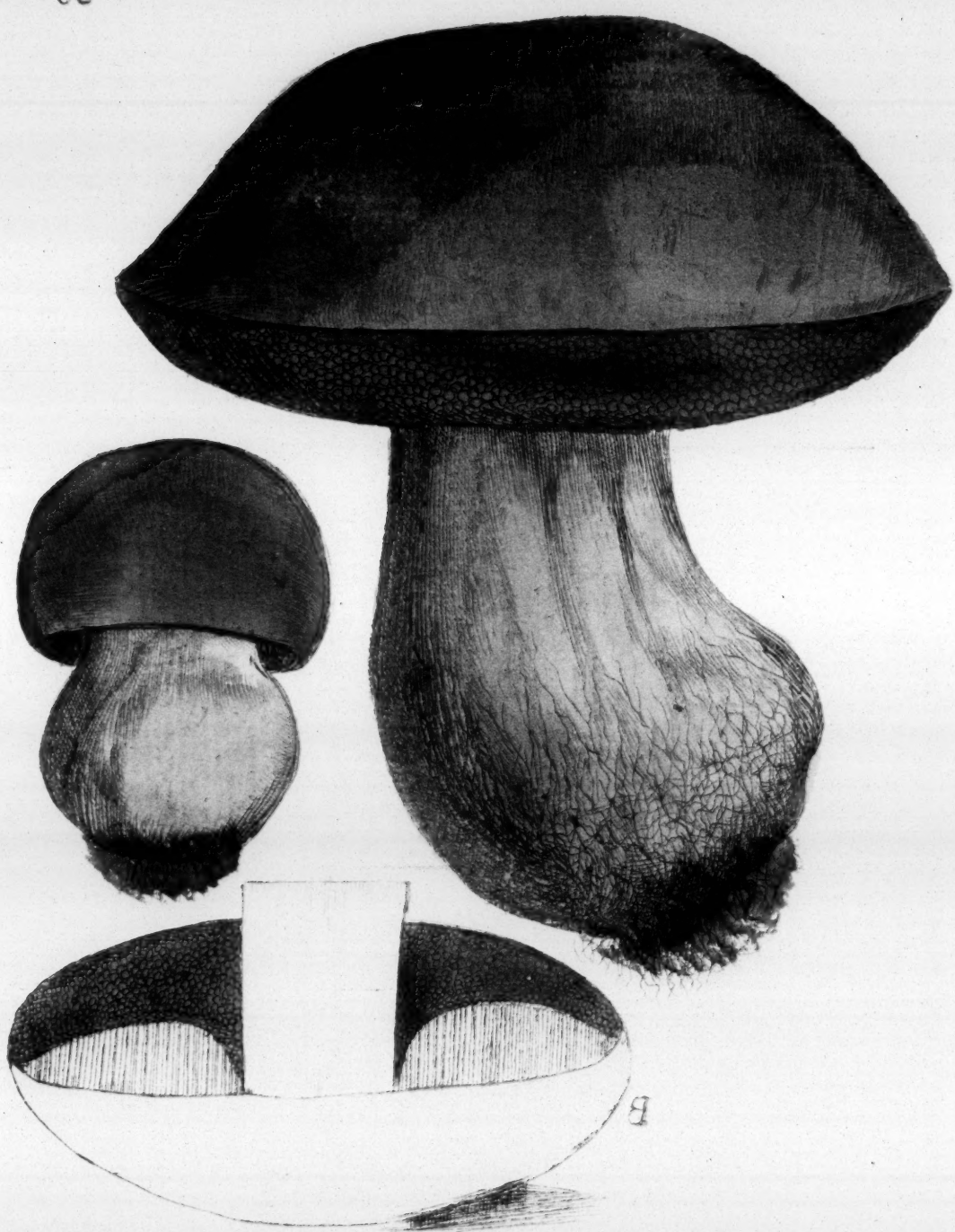
The curtain is of an extremely tender and delicate texture, and vanishes almost as soon as the rim of the pileus separates from the stem; sometimes, however, I have seen it in plants of an advanced growth, as is expressed in the plate. The tubes are cylindrical, longest in the middle, where they adhere to the stem by their sides. The pores are round, and of a bright yellow, turning to a dirty green in decay.

The pileus is cushion-shaped, at first glutinous and yellow, changing in its progress to olive, dusky brown, and various other hues; the flesh is of a pale yellow, thick, brittle, and spongy.

Grows in woods about the roots of trees, in July and August; it is the most early of the autumnal Fungi.



Agaricus campestris L.



Boletus edulis

BOLETUS *stipitatus*, pileo glabro pulvinato marginato, poris XCIX.
compositis acutis porulis angulatis brevioribus. Sp. Pl. 1646. *bovinus.*
Hudson Angl. 627. *Scop. Corn.* 1586. *Schæf. T.* 103.
Hall. Hist. 2302. *Mich. Gen. P.* 127. *T.* 68. *F.* 1.
Ceromyces crassus. *Battarra Fung.* 62. *T.* 29. *Fig. A. B.*
Fungus porosus crassus. *Ray Syn. P.* 11. *No.* 2. *Caput*
Bufonis. *Sterb. P.* 181. *T.* 17. *Fig. G. G.*

BROWN BOLETUS.

T A B. LXXXV.

THE root consists of a tuft of black fibres, issuing from the base of the stem.

The stem is at first globular, hard, and solid; as it advances in growth it becomes oblong, and in some specimens nearly cylindrical, and about three inches high: it is often beautifully reticulated with capillary veins, of a dark red colour, especially towards the root; the colour is generally a red brown. I never could discover any curtain upon this plant.

The tubes are round, the thickness of an hog's bristle, very closely arranged; they are of a pale yellowish colour. The pores are round, much smaller than in the last species, and of a strong fulvous brown colour. In this species the tubes, *at B.* are longest in the middle, between the rim of the pileus and the stem, growing shorter both outward and inward, and do not, as in the Yellow Boletus, adhere to the stem, or even touch it.

The pileus is convex, the margin acute, the colour varies from dark brown to fulvous, fawn colour, or buff of various hues; the internal substance is a greenish white, but on being cut, or broken, instantly changes to a dark blue colour.

This is a more rare plant in this neighbourhood, and does not appear till September. I am sorry to find in a late English Author, that some of the characters which belong to this plant, are mistakenly applied to the Yellow Boletus.

C. BOLETUS *stipitatus*, pileo parvo convexo glabro, poris tenuissimis
procusus. numerosis albidis, stipite longo medio crasso.

TALL BOLETUS.

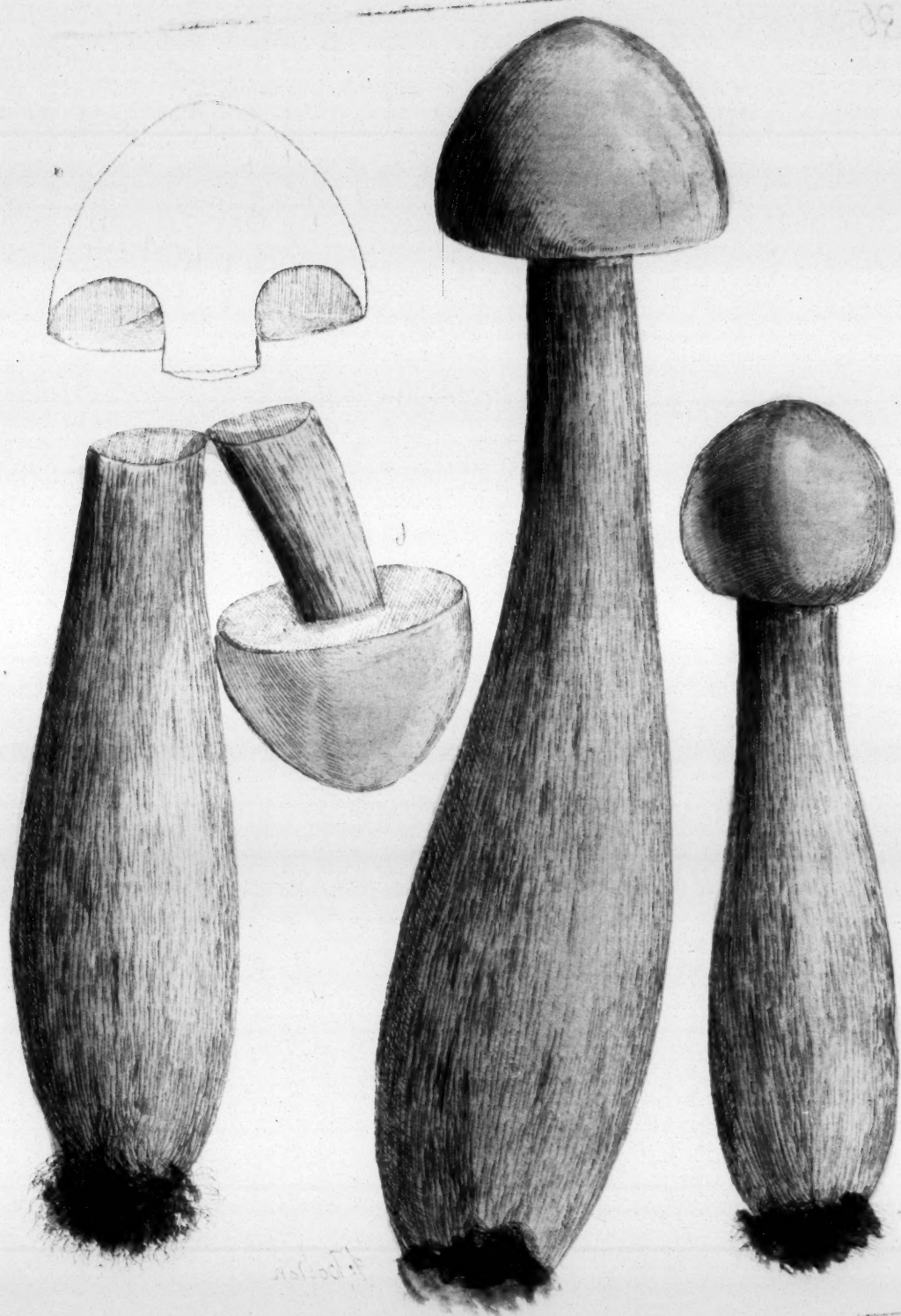
T A B. LXXXVI.

THE root consists of numerous fibres, issuing from the base of the stem. The stem is obtusely pointed at the base, from whence the lower part greatly increases in thickness, for the space of an inch or two, and then gradually decreases again to the top. The colour is a pale dusky olive; the substance hard and brittle; the height five or six inches.

The pileus is at first globular, afterwards becomes semioval, or highly convex; the surface is smooth, dry, and to the touch feels like fine cloth; it is of a pale dusky olive colour; the flesh white and brittle. The tubes are cylindrical, very fine and white; the pores white, and so minute as not to be discerned by the naked eye. In decay the whole turns to a dirty brown, and dissolves in a turbid gelly.

This is a rare species; the specimens here figured, I gathered in *Woodhouse-Wood*, and I have seen the plant in several other places about *Halifax*.

I find no description or figure which agrees exactly with this plant. Is it a naked variety of the *Fungus cineræ formæ*, Artichoke mushroom, of PARKINSON, *P.* 1324. No. 25. which he says grows at *Ripton*, near *Ashford*, on *Bromley-Green*, &c. and which is well figured by my ingenious friend DICKSON, in his *Pl. Crypt. Fas. 1. T. 2. F. 2?*—I have sometimes observed a faint resemblance of scaliness on the stem of my plant, but the pileus is constantly smooth from first to last.





BOLETUS *stipitatus*, pileo flavo subtomentoso, poris subangulatis CI.
 deformibus fulvis planis, stipite flavo. Sp. Pl. 1647. Poli-
 porus carne secedente petiolatus, pileo villoso cervino poris sub-
 albidis. Hall. Hist. 2311. Fungus porosus tenuis coriaceus. sub-
 Buxbaum Cent. 5. T. 15. Fig. 1. tomentosus.

WOOLLY BOLETUS.

T A B. LXXXVII.

THIS pretty Boletus has an hard compressed root, emitting numerous black fibres.

The stem is of a reddish brown, an inch or an inch and a half high, often compressed or sulcated, and of a tough, hard, dry, leathery substance.

The pores are small and angulated, but not of equal figure; their margins are jagged or laciniated, and of equal height, which gives an appearance of woolliness to the underside of the pileus: the colour is a bright fulvous brown. The tubes, at B. are about a line and half in length, and constitute almost the whole thickness of the pileus; they are tough, and firmly united together by their whole length. They are represented at A. as they appeared when a little magnified.

The pileus or coat, to which the tubes are affixed, is very thin, as at B. of a tough, hard, vellumy substance; of a fulvous brown on the upper side, and appears to the eye as if covered with short silky filaments closely combed down, from the centre to the margin; but which, in fact, are rather fine almost imperceptible *stria*, inseparable from the surface: the margin is ciliated with brown hairs, and the surface marked with four or five concentric stripes of a darker colour.

It is a rare plant here. The specimens from which this description and these figures are taken, grew in Robin Hood's Scar, in Southowram, near Halifax, in September, 1784.

A N

HISTORY OF FUNGUSSES,

GROWING about HALIFAX.

G E N U S III.

H Y D N U M.

- CII. *imbricatum.* HYDNUM *stipitatum, pileo convexo imbricato. Sp. Pl. 1647.*
Hudson Angl. 628. Flora Danica, T. 176. Erinaceus
esculentus albus crassus. Mich. Gen. P. 132. T. 72. Fig. 2.
Echinus petiolatus albicans superne squamosus. Hall. Hist.
 2324.

IMBRICATED HYDNUM.

T A B. LXXXVIII.

THE root consists of a few fibres, issuing from the club-shaped base of the stem.

The stem is white, solid, gross, brittle, of a spongy substance, and three inches high;—in full grown plants the thickness of one's thumb, and sometimes a number of stems adhere together by their fibrous bases.

The under side of the pileus is thickly set with soft prickles, pointing downwards; these are white, and of various lengths, from one to three or four lines; they are of a tender, soft substance.

The pileus is at first smooth and globular, afterwards becomes convex, sometimes lobed, and gashed on the margin, the sides of the lobes lying over each other; but more frequently only waved or undulated at the margin. I have not found the surface to be much scaled or imbricated, though I have been long acquainted with the plant. The pileus thick and fleshy; and the whole plant is white, and of a brittle, spongy substance. The figures in *Vaill. Paris, T. 14. Fig. 6, 7, 8.* seem to have been taken from this plant.

Grows in a deep narrow lane, by which you ascend the wood at *North-Dean*, near *Halifax*, in September and October.



Agaricus muscarius L. Fr. *Agaricus muscarius* L. Fr. *Agaricus muscarius* L. Fr.

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HYDNUM *stipitatum*, pileo convexo lævi flexuoso. Sp. Pl. 1647. CIII.
 Hudson Angl. 628. *Echinus petiolatus subrufus*, petiolo repandum.
 levi, Hall. Hist. 2325. *Erinaceus coloris pallide citrei*.
 Dillen. C. Gifs. P. 188. T. 1. *Erinaceus esculentus albus*
crassus. Mich. Gen. P. 132. T. 72. Fig. 3. Hedwig
 Cript. T. 37. Fig. 212, &c.

FLAT HYDNUM.

T A B. LXXXIX.

THE root is fibrous; the stem solid, brittle, crooked or bowed, nearly of equal thickness, of a pale cinnamon colour, four or five inches high, and often inserted into the pileus, towards one side, or not justly in the centre. The stems frequently rise in clusters of four or five, adhering by the bases, and sustaining plants of various sizes, which press upon each other, and thereby become much distorted.

The soft spines or prickles underneath, are almost always placed obliquely, so as to lay over one another in an imbricated order; sometimes they are simple, sometimes divided; constantly of a bright cinnamon colour, and a soft brittle substance.

The pileus is flat and smooth, feels to the touch like velum; the rim rudely lobed, sinuated or laciniated, and constantly of a pleasant bright cinnamon colour; the fleshy or internal part, is white and brittle.

This plant grew in great abundance in *Lee-Bank-Shroggs*, in September, 1786; where I gathered the specimens here figured and described.

In one specimen, I observed a dawning matter adhering to the stem and spines; which looked like the fragments of a curtain, but I could not be certain that it was such.

- CIV. *HYDNUM stipitatum pileo dimidiato.* Sp. Pl. 1648. Hudson
auriscalpum. Angl. 629. *Echinus petiolo gracili laterali, pileolo plano*
obsuro. Hall. Hist. 2321. Ross Elem. T. 3. Fig. 2. b.
Buxbaum Cent. 1. T. 57. Fig. 1. Mich. Gen. P. 132.
T. 78. Fig. 8. Schæf. Fung. T. 143. Boletus pileo or-
biculari, &c. Gleditsch, P. 74. No. 7.

E A R P I C K H Y D N U M.

T A B. X C.

THE stem is bulbous or swollen at the base, where it adheres to the decaying cones of fir, without any visible radical fibres; from the base the stem gradually diminishes in thickness, sometimes it is divided into two or three branches or divisions, each whereof sustains its own proper pileus; it is covered, from the base almost to the top of the stem, with upright, stiff, brown hairs, is of a dark fuscous brown colour, and a tough dry elastic substance; the height in a full grown plant about two inches.

The pileus is sometimes circular, but more frequently oblong, semicircular, or kidney-shaped. The stem often placed out of the centre, sometimes at one side; it is flat or convex, the centre sometimes elevated, sometimes depressed, always of a dark brown colour, and a dry tough substance; the under side a little paler; the spines are dry, tough, hard, unequal in length, and of a brown colour.

Grows under fir trees, in plantations about *Halifax*, in August and September.

In a natural arrangement, will not the *Hydni* and *Boleti* touch each other, between this plant and the *Boletus tomentosus*?

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A N

HISTORY OF FUNGUSSES,
GROWING about HALIFAX.

G E N U S IV.

P H A L L U S.

PHALLUS *pileo ovato celluloso, stipite nudo rugoso. Sp. Pl. CV.*
1648. *Hudson Angl.* 629. *Boletus capite tereti reticulato. esculent.*
Hall. Hist. 2247. *Mich. Gen.* 203. *T.* 85. *Fig.* 1. 2.
Tourn Inst. P. 561. *T.* 329. *Fig. A.* *Battarra. P.* 24.
T. 2. *Fig. F.* *Sterb. Fung. P.* 92. *T.* 10 *Fig. omn.*
Fungus favigonosus. Ray Syn. 11. No. 7. *Park. Theat.*
Ger. Emp. 1583.

ESCULENT PHALLUS or MORELL.

T A B. XCI.

THE stem is hollow and wrinkled, contracted or pursed at the base, where it emits a few radical fibres; it is two or three inches high, of a smooth but unequal surface, being frequently distorted, and having many deep furrows and alternate ridges. The substance of the stem is extended all over the inside of the pileus, and makes the lining or inward surface of the whole cavity:—here it is white, wrinkled, and dusted over with a soft mealy powder.

The pileus is generally of an oval figure, sometimes globular or compressed, and varies greatly in size and colour, according to soil and situation; it is most commonly of a pale yellowish brown or buff, changing to a dark dusky colour in decay. The surface is cellular, wrinkled, and latticed; the cells exhibiting a great variety of unequal figures.

Grows in sandy meadows, about the river *Calder*, but rarely. It is greatly esteemed as an esculent.

- CVI. *PHALLUS volvatus stipitatus, pileo albo celluloso, apice pervio.*
impudicus. *Hudson Angl. 629. Phallus volvatus stipitatus pileo celluloso.*
Sp. Pl. 1648. Sterb. Fung. T. 30. Fig. A, D, B, C.
Mich. Gen. T. 83. Hall. Hist. 2248.

STINKING MORELL.

T A B. XCH.

THE root consists of one principal fibre, the size of a pack-thread, and about a span long; it is soft, flexible, white, and emits a few other capillary fibres from its sides.

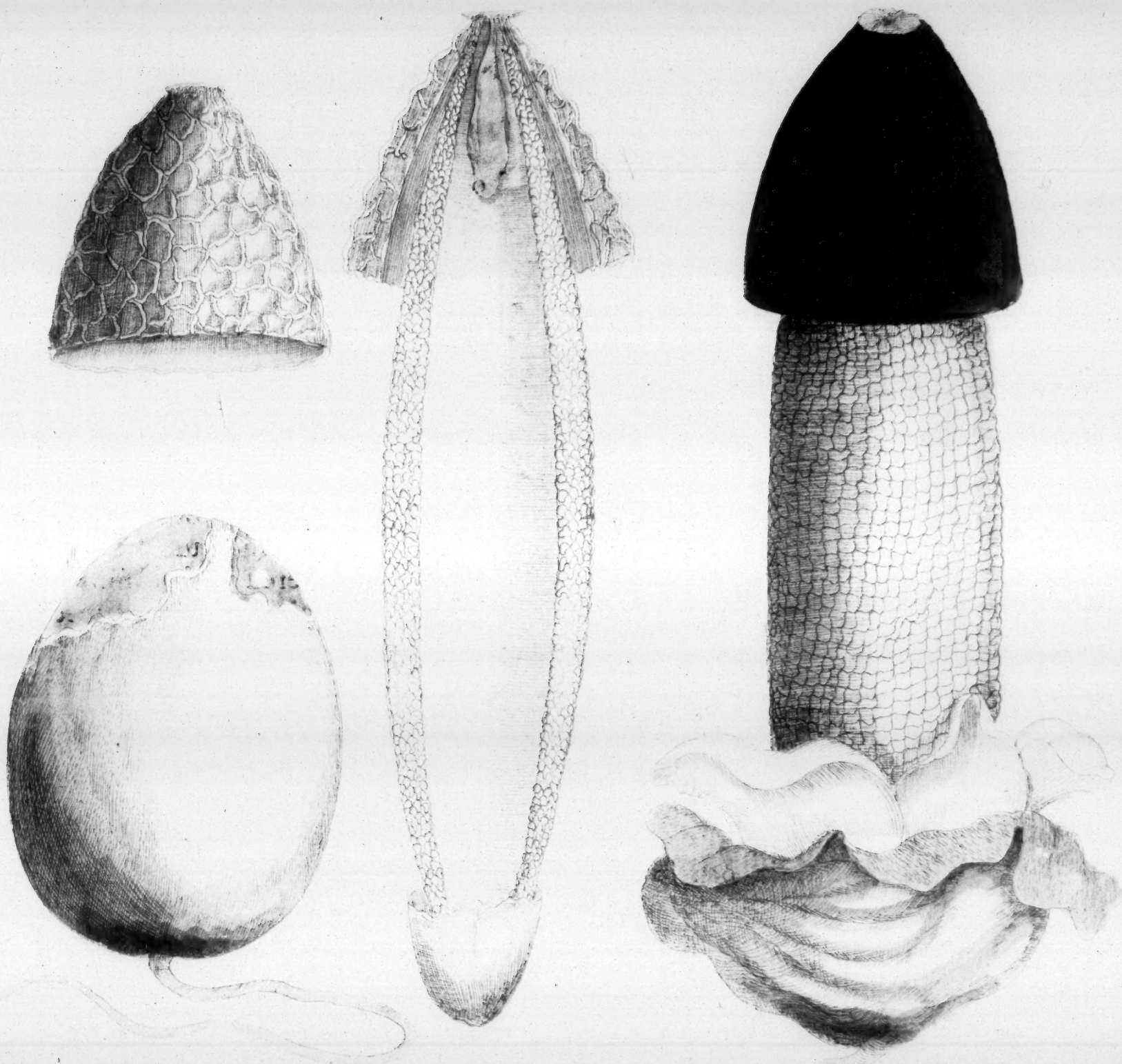
When the plant first appears above ground, it is of the colour, shape, and size of an hen's egg, *as at a.* soon after, the outer skin or soft shell breaks at the summit, and begins gradually to slide down and discover a thick coat, of stiff, glewy, pale coloured, transparent jelly, *b.* in the space of an hour this jelly slides down to the root, in great wrinkles, and discovers another volva, *c.* which is divided, about half way down, into three thick white, obtuse lobes, which gradually give way to a conical pileus, that makes its appearance in the space of an hour.

The pileus, *d.* is at first thickly covered with a shining substance, of a blackish green colour, which rubbed between the fingers, looks like a moist soft powder, and which soon begins to melt, and fall off, in a thick, black, turbid, intolerably foetid gelly; by this time the stem, *g.* has acquired its proper height, four or five inches; it is hollow and smooth within, its substance cellular, light, and spongy. The pileus also, after the discharge of the gelly, becomes cellular and white; but these cells are much larger than those in the stem; the inside is smooth, and lightly adheres to the stem, at its apex: at last the stem becomes loose in its own proper socket, *h.* falls and becomes the food of insects.

In the cavity of the stem, adhering to the top, and appearing as if enclosed in a membrane, hangs a piece of pellucid gelly, of a stiff, but rather trembling substance, *as at i.*

I watched the progress of this plant on the 20th of September, 1776, when this description was written.

Grows in woods and hedges about *Halifax*, but rarely.





I N D E X,

O F T H E

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E N D O F V O L. II.

E R R A T A.

INTRODUCTION. Page 24. line 34. *rent.*—27. 11. a comma after *perishing.*—29. 13. for 56. 5, 6.—
30. 4. after *strong* erase comma.—32. 2. after *pale* erase comma.—IN THE BOOK. P. 55. in margin,
adscendens.—63. 13. *rent.*—68. 1. *flavo.*—84. 2. *rotundatis.*—IN VOL. I. INTRODUCTION. P. 16.
l. 10 read *synonyma of present Authors.*



